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TRAVELS

TO THE

WESTWARD

OF THE

ALLEGANY MOUNTAINS,

IN

THE STATES

OF THE

OHIO, KENTUCKY, AND TENNESSEE,

IN THE YEAR 1802.

CONTAINING

ACCOUNTS RELATIVE TO THE PRESENT STATE OF AGRICULTURE, AND THE NATURAL PRODUCTIONS OF THOSE DISTRICTS; TOGETHER WITH PARTICULARS OF THE COMMERCIAL RELATIONS WHICH SUBSIST BETWEEN THESE STATES, AND THOSE TO THE EASTWARD OF THE MOUNTAINS, AND OF LOWER LOUISIANA.

BY F. A. MICHAUX, M.D.

Member of the Society of Natural History of Paris, &c.

TRANSLATED FROM THE FRENCH.

LONDON:

PRINTED FOR RICHARD PHILLIPS, 6, NEW BRIDGE STREET,

By Barnard & Sultzer, Water Lane, Fleet Street.

1805.

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BY THE AUTHOR.

THE Public are already in possession of numerous books of Travels in the United States, and many observations relative to those countries are likewise to be met with in various Works so that the mass of information already acquired, might appear on superficial consideration, to be sufficient, and to render any additional account superfluous. The greater part of those Works, however, relate almost exclusively to the United or Atlantic States, and though some of them treat of those situated to the Westward of the Allegany Mountains, yet they do so only in a slight or extremely vague manner; but from certain opinions, which I entertained of those countries, I was induced to consider them as far more interesting than is generally imagined. I therefore proposed to myself, when an opportunity should occur, to travel through them:—and, in June, 1802, being at Philadelphia, I was enabled to carry my desire into execution.

The extent of my journey could not be less than two thousand miles, and I could not, consistently with the object which had brought me for the second time into the United States, devote to it a portion of time sufficient for collecting all the facts which would obviously result from my journey. It would have required, at least, a year to fulfil the intentions I had in view, by obtaining accurate

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ideas, from my own observations, of the progress of vegetation.

This space of time would also have enabled me to procure more extensive information relative to the commercial transactions which form such an essential union between the Western Countries and those of the United States and Lower Louisiana, and relative to which, I do not believe any thing has hitherto been published. Hence my Tour ought not to be considered as perfect. I however trust, that with respect to the appearance of those countries, the prosperity to which they have arrived in modern times, and that of which they are yet susceptible, it will be found to contain sufficient details to enable the reader to alter any opinion he may have conceived to their disadvantage.

I must also observe, that when I undertook this journey, I had no intention of giving publicity to my observations, and I have consequently omitted the collection of a multitude of facts; which, however, indifferent they may appear to the traveller, often prove highly interesting on perusal; a circumstance of which, I had ample proof, while writing this short relation. But, on the other hand, I have entered into details which will, perhaps, to many persons appear trifling, though I think they will be far otherwise, to those who may henceforth visit the countries in question; because they form that kind of intelligence which a traveller would first endeavour to obtain, relative to the region which is the object of his journey, and of which, few productions treat in a satisfactory manner.

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TRAVELS

TO THE WESTWARD

OF

THE ALLEGANY MOUNTAINS.

CHAP. I.

THE AUTHOR'S DEPARTURE FROM BOURDEAUX, AND ARRIVAL AT CHARLESTON.—REMARKS ON THE YELLOW FEVER.—BRIEF DESCRIPTION OF THE TOWN OF CHARLESTON.—OBSERVATIONS ON SOME OF THE TREES OF THE ANCIENT CONTINENT, CULTIVATED IN A BOTANIC GARDEN NEAR THAT TOWN.

CHARLESTON, in South Carolina, being the first place of my destination, I repaired to Bourdeaux, which is the French port most nearly connected in its commercial intercourse with the southern part of the United States, and from which vessels are continually sailing for different ports of North America. I therefore embarked on the 25th of August, 1801, on board the John and Francis, commanded by the same captain with whom I had returned to Europe several years before.

About a fortnight after our departure we were becalmed in sight of the Azores Isles: we were lying nearest to those of St. George and Graciosa, and could easily distinguish some of the houses, which appeared to be built of stone, or whitewashed, while the steep declivities of the soil were divided by hedges, which probably formed the boundaries of private property. Most of these isles contain a number of high hills, which take different directions, and behind which the summit of Pico, in a pyramidical form, and as it were, sloping towards the upper part, is seen rising majestically above the clouds. At the time we enjoyed this sublime view, its grandeur was increased by the glowing tinge imparted to the clouds by the rays of the setting sun; but a slight breeze springing up, we were soon deprived of our prospect,

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and on the 9th of October 1801, we made the road of Charleston in company with two other vessels, one of which had quitted Bourdeaux eighteen days, and the other a month before we sailed.

The pleasure, however, which we experienced from our safe arrival was soon diminished. The pilot informed us that the yellow fever had prevailed for some time at Charleston, when a great portion of the inhabitants had been carried off by its ravages: this intelligence alarmed the passengers, who were fourteen in number, and most of whom had relations or friends in the town. We had no sooner cast anchor, than those who had not before resided in hot climates were conveyed by their friends to the isle of Sullivan. This isle is situated seven miles from Charleston: its dry and barren soil is almost deprived of vegetation, but as it is exposed to the sea breezes, its air is fresh and agreeable. For some time past, or since the bilious and inflammatory epidemic, generally called the yellow fever, has regularly appeared every year at Charleston, a great number of the inhabitants and planters who took refuge in the town in order to avoid the intermittent fevers which attacked seven-tenths of those in the country, have built many houses in this isle, in which they reside from the first of July till the commencement of a frost which generally happens about the 15th of November. Some persons on the island keep boarding-houses for the reception of those who may have no establisments of their own. It has been remarked, that strangers newly arrived from Europe or from the states of North America, and who immediately land on this island are not attacked by the yellow fever.

But these considerations, however strong they might be, could not induce me to pass an indefinite time in a place so destitute and unpleasant; I therefore resisted the advice of my friends and remained in the town. I had, however, nearly fallen a victim to my obstinacy; having, a few days afterwards, been attacked with the first symptoms of that dreadful disease, from which I did not recover till I had been three months a sufferer.

The yellow fever varies every year in point of intensene and medical practitioners have not yet been able to determine characteristic signs by which, at its appearance, its degree of malignity in summer might be discovered. The inhabitants of town are not so subject to its attacks as strangers, eight tenths whom died in the year of my arrival; and when the former attacked, it is always in a far smaller proportion.

It has been observed, that during the months of July, Aug September, and October, when this malady generally preva the persons who absent themselves from Charleston only fo few days, are, on their return, much more susceptible of its tacks than those who remain in the town. The inhabitants

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Upper Carolina, distant two or three hundred miles, who come hither during this season, are as liable to take the fever as strangers, and those of the environs of the town are not free from its ravages. Hence it appears, that during one third of the year all intercourse is nearly cut off between the town and the country. The place is then supplied with provisions only by the negroes, or the native inhabitants of the country, who are not attacked by this disease. When, on my return from the tour which I had been making in the western districts, I repaired to Charleston in the month of October 1802, I did not meet in the most frequented road, for the space of three hundred miles, a single traveller either on his way to, or returning from the town; while at the houses where I stopped, they could not believe that my business could be of such importance as to induce me to repair thither in such a calamitous season.

From the beginning of November, however, till the month of May, the country makes a totally different appearance. Every thing seems to have acquired new life, commerce and the communications which were broken off are all resumed, the roads are covered with carts and waggons, bringing from all quarters the production of the interior; a concourse of coaches and cabriolets drive about with rapidity, and keep up an incessant intercourse between the town and the houses in its vicinity, where the owners pass a part of the winter season; in short, commercial activity renders Charleston at this time as animated as, during the summer, it is melancholy and deserted.

It is generally believed at Charleston, that the yellow fever, which every year prevails there, as well as at Savannah, is similar to that which appears in the Colonies, and that it is not contagious; but this opinion is not universally adopted in the northern towns. It is a fact, that when this malady appears at New York and Philadelphia, the inhabitants are as apt to take it as strangers; and therefore they remove from their habitations as soon as they learn that their neighbours are attacked by it. But they enjoy a very valuable advantage which those at Charleston do not possess; and this is, that the country which surrounds Philadelphia and New York is agreeable and salubrious, so that, on retiring to the distance of two or three miles, they remain in perfect security, even when the disease prevails at those towns in its greatest violence.

I have made this slight digression, in order to inform those who may have to travel to the southern parts of the United States, that they will really be in great danger if they arrive in the months of July, August, September, or October. I was, like many others, of opinion, that the adoption of proper means to prevent the effervescence of the blood, would be an infallible preservative

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against this disease; but every year's experience proved to m
that those who had followed a kind of regimen proper for th
purpose, though such a method is undoubtedly the best, do n
always avoid the fate of such as are less abstemious.

Charlston is situated at the confluence of the rivers Ashley a
Cooper. The space of ground which it occupies is about a mi
From the middle of the principal street you would perceive bo
these rivers, were not the view intercepted by a public edifi
built on the banks of the Cooper. It is on those of the Ashl
that you find the most populous and commercial part of the tow
Sections of quays project to a considerable distance into the river,
facilitate the loading of merchant ships;—these quays are made
the trunks of the cabbage palm-tree, fixed together and arranged
squares one above the other. Experience has proved that th
branches of these palm-trees, though of a very spongy natu
remain under water a great number of years without going
decay; for which reason they are preferred for these kinds of
constructions, in preference to all other species of trees in th
country.

The streets of Charlston are wide, but not paved, and the fe
of the passenger sink into the sand every time he is obliged t
quit the brick foot-paths attached to the houses. The rapid cou
of the coaches and cabriolets, the number of which is proportio
ately much greater in this than in any other town in Ameri
continually reduces this moving sand, and attenuates it to such
degree that the slightest wind fills the shops with its dust, and
renders the situation of pedestrians peculiarly disagreeable. At
certain distances the inhabitants are supplied by pumps, wi
water which is so brackish that it is truly astonishing how a
stranger can accustom himself to drink it. About seven tenths of
the town consist of wooden buildings; the rest are of brick.—
According to the last census taken in 1803, its population, includ-
ing strangers, amounted to 10,690 whites, and 9,050 slaves.

Travellers who may arrive at Charlston, or at the other towns
of the United States, will find no furnished houses or apartme
to let, for their accommodation; no *tables d'hôte* or cooks' sho
but only boarding houses, where all their wants may be suppli
In Carolina the charge at these establishments is from twelve
twenty dollars per week, which is excessive, and not proportion
to the price of the articles with which you are provided. Bee
for instance, seldom costs more than twelve *sous* per pound; and
vegetables are dearer than meat. Besides the articles of consum
tion furnished from the country, the port of Charlston is continua
filled with small vessels which arrive from Boston, Newpo
New York, and Philadelphia, and from all the little intermedia
harbours, which bring flour, salt-meat, potatoes, onions, carro

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beet-root, apples, oats, maize, and hay; planks and timber also form a considerable article in the importations: and though all these productions are brought from a distance of nine or twelve hundred miles, they are cheaper and of a better quality than those of the surrounding country.

In winter the markets of Charleston are supplied with sea-fish alive, which are brought from the northern parts of the United States, in vessels so constructed that the sea water is continually renewed in them. The ships engaged in this commerce return loaded with rice and cottons, the greater part of which is re-exported to Europe, the freight being always cheaper in the Northern than in the Southern States. The wool and cotton which remain in the North are more than sufficient for the supply of the manufactures, which are but few in number, and the excess is distributed in the country parts, where the women make it into gross articles of clothing for the use of their families.

Wood is very dear at Charleston, where it costs from forty to fifty French francs per cord; and yet the forests, of which they do not even know the extent, begin at six miles, and some parts at a less distance from the town; and the conveyance is facilitated by the the two rivers at the confluence of which it is situated. This dearness of wood arises from the scarcity of hands to cut it; and a great number of individuals burn, from œconomy, coals which are brought from England!

As soon as I had recovered my health, I quitted Charleston, and went to reside in a small habitation about ten miles from the town, where my father had formed a botanic garden, and in which he carefully collected and cultivated the plants which he found during the long and tedious journies, that his ardent love of the science induced him to make almost every year in various parts of America. Always impressed with the desire of serving the nation amongst whom he resided, he thought that the climate of North Carolina might be favourable for the production of several useful vegetables of the old continent, and he mentioned them in a memoir which he read to the Agricultural Society of Charleston. Some fortunate attempts had already confirmed him in his opinion, but his return to Europe prevented the continuance of his exertions. On my arrival in Carolina I found in this garden a fine collection of American trees and plants, which had resisted an almost total neglect for four years. I likewise found a great number of the trees of the old continent which had been planted by my father, and some of which displayed the most vigorous vegetation. I particularly observed two *Ginkgo biloba*, planted only seven years ago, and which were already upwards of thirty feet high; several *Sterculia platanifolia*, which had come to perfection and afforded seed, five or six years since, and about a hundred and fifty *Mimosa*

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illibrisin, the first stock of which came from Europe, and was about ten inches in diameter. Before I returned to France I made presents of several of these trees, which are much esteemed on account of their magnificent blossoms.—At present the Agricultural Society of Carolina possess this garden; they intend to keep it, and to cultivate in it the useful vegetables of the ancient continent, which, from the similarity of the climate, promise to afford the most favourable results. I employed the remainder of the season in making a collection of seeds to send to Europe, and the winter in visiting different parts of Lower, or South Carolina, as well as in reconnoitring the districts where, in the following year, I hoped to reap the most abundant harvests by procuring several desirable species which I had not been able to collect during the autumn.

I shall take this opportunity of obsetving that in North America, and perhaps more so than in Europe, there are plants which are peculiar to certain determinate spots: hence it happens that one botanist, notwithstanding all his zeal and activity, does not discover them till after a search of several years, while another, at a fortunate moment, will meet with them in his first excursion. I must add for the advantage of those who may be inclined to travel over the southern parts of the United States, with botanical views, that the period of blossoming begins on the 1st of February; that it will be necessary to arrive in the month of August, in order to collect the seeds of herbaceous plants, and on the 1st of October for those of forest trees.

CHAP. II.

DEPARTURE FROM CHARLESTON FOR NEW YORK.—BRIEF ACCOUNT OF THAT TOWN.—BOTANICAL EXCURSIONS TO NEW JERSEY.—REMARKS ON THE QUERCITRON OAK AND THE WALNUT-TREES OF THAT COUNTRY.—JOURNEY FROM NEW YORK TO PHILADELPHIA, AND RESIDENCE THERE.

IN the spring of 1802 I left Charleston for New York, where I arrived after a journey of six days. The intercourse is so active between the Northern and the Southern States, that one frequently finds at Charleston as many opportunities as can be desired for going to the first mentioned Settlements. Several vessels have apartments tastefully fitted up and conveniently arranged for the reception of passengers, who every year proceed in great numbers to reside in the northern parts of the United States during the sickly season, and return to Charleston in November following. The charge for the voyage is from forty to fifty dollars,

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and its duration varies according to the seasons. The ordinary time is ten days, but it is sometimes much longer in consequence of the violent adverse winds experienced in doubling Cape Hattras.

New York, situated at the confluence of the North and East rivers, is much nearer to the sea than Philadelphia; its safe harbour, which is easy of access in all seasons, gives it a great advantage over the last-mentioned town, and continually promotes its extent, riches, and population, which last is estimated at upwards of fifty thousand souls, amongst whom are only a very small number of negroes. The necessaries of life are not so dear here as at Charleston, and the charge at the boarding houses is from eight to twelve dollars per week.

During my stay at New York I had frequent opportunities of seeing Doctor Hosack, Professor of Botany, who is a man of considerable reputation. He was then occupied in forming a botanic garden, in which he intended to give a regular course of lectures on that science. This garden is several miles distant from the town; its situation is well chosen, and convenient spots have been selected for such plants as require particular management. Mr. Hosack is physician to the hospital and the prison, and he permitted me to accompany him in one of his visits, by which I had an opportunity of seeing those establishments. The hospital is well situated; the buildings are extensive, and the wards large and airy. The beds, however, appeared to me to be bad; they consisted of a very low couch, or frame, with a border of scantling about four inches high; a thin mattrass, or rather a paillasse, filled with oat straw; coarse brown blankets, and a coverlet. The prison is remarkable for its good order and arrangements, the regularity which prevails in it, and particularly for the readiness of the prisoners to perform the tasks imposed upon them. Some are occupied in shoe-making, and others in manufacturing *cut-nails*. These nails, which are made by means of a machine, have no points, and cannot be used for every kind of work, like those manufactured by the ordinary process; many people, however, prefer them for nailing the shingles, with which almost all the houses in the United States are covered. It is asserted that these nails are not liable to the inconvenience of quitting their holes, which often occurs with the other kinds, for on the roofs of old houses there may be seen a great number of nails, which appear as if they had only been driven in half or three parts of their length.

While I staid at New York I likewise made some botanical excursions along the North River, into New Jersey. This part of New Jersey is very unequal; the soil is bad and stony, judging from the corn which I saw growing on some of the farms. Large lumps of rock, of a calcareous nature, and as if they had gone

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to decay appeared at the surface of the soil on almost all the hillocks. There are, nevertheless, several species of trees, and among others, a variety of the red oak, the acorn of which is swelled at the small end; the white oak, *Quercus alba*; and among the different species or varieties of the walnut-tree, the *Juglans tomentosa*, or mocker-nut; and the *Juglans minima*, or pig-nut. In the low and moist parts, where the water remains almost all the year, may be found the *Juglans hickery*, or shell-barked hickery; and the *Quereus prinus aquatica*, which belongs to the series of *Prinus*, and is not mentioned in the "*Histoire des chênes**." The valleys are planted with ash and plane-trees, *Cornus Florida*, poplars, and particularly with *Quereus tinctoria*, or quercitron, known in this country by the name of black-oak.

The quercitron oak is very common in all the Northern States, and is likewise found to the westward of the Allegany Mountains; but it is scarce in the lower parts of the two Carolinas and Georgia. The leaves of the lower have a different form from those of the upper branches, which latter are more deeply indented. Amongst the great number of species and varieties of oaks, the leaves of which differ in their forms according to their age, which often causes them to be confounded, there are characteristic signs by which the black oak may always be distinguished. In all the other species, the stalk, the veins, and the leaves themselves, are of a green more or less deep, and towards autumn this colour changes to a red; on the contrary, the stalk, the veins, and the leaves of the quercitron, after the spring, become yellowish, and as it were pulverulent, while the yellow colour gradually grows deeper towards the approach of winter. This remark is sufficient to prevent it from being mistaken; but there is a more positive circumstance by which this species may be distinguished in winter, even when it has lost its leaves; this is the bitter flavour of its bark, and the yellow colour acquired by the saliva on chewing it; I however thought I could discover in the bark of the *Quereus cinerea* the same property, of which I informed Dr. Bancroft, who was at Charleston in the winter of 1802. In all cases, however, no mistake can arise respecting these two species of oak, for the latter only grows in the most dry and barren parts of the Southern States; it is rarely more than four inches in diameter, and eighteen feet high; and its leaves are lanceolated; while the quercitron attains the height of eighty feet, and has very long leaves.

Amongst the species of acorns which I sent to France from the United States, were those of the quercitron oak, which have

* History of the Oaks of North America, by A. Michaux, one vol. folio with plates, 1801. Levrault, Paris.

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grown abundantly in the nursery of Trianon. The species and varieties of the walnut-tree, indigenous in the United States, are also very numerous, and might form the subject of an useful and interesting monography: but such a work would never be accurate, unless the varied character of these trees were studied for several years in the country where they grow. I have seen some of the walnut trees, which by their blossoms and leaves appeared to belong to the same species, but of which the nut, as well as the shell, seemed to be a distinct kind. There were others on the contrary, whose leaves and blossoms were absolutely different, while their fruit was perfectly similar. It is true that there are some, the blossoms and fruit of which present characters very decisive, but these form a very small portion of the number. This multitude of varieties and species of walnut trees, is not confined to the United States, but prevails in every part of North America, from the northern extremity of the United States as far as the Mississippi, that is to say, in an extent of more than two thousand four hundred miles from north to south, and of fifteen hundred from east to west. I brought home new walnuts of six different species, which have grown well, and appear not to have been deteriorated by the change.

On the 8th of June 1802, I left New York for Philadelphia. The distance is a hundred miles. Some of the stages or public carriages perform this journey in a day, others in a day and a half. The fare is five dollars each person. At the inns at which the stages put up or stop, you pay a dollar for a dinner, half a dollar for breakfast or supper, and give a like sum to the coachman. The space between the two towns is entirely cultivated, and the farms are contiguous to each other. About nine miles from New York is Newark, a small but very pretty town, situated in New Jersey. The fields which surround it are planted with apple trees, and the cider made from their fruit is considered to be the best in the United States; but I found it very inferior to what I had drank at St. Lô, Coutances, or Bayeux. Amongst the other small towns on the road, that of Trenton is worthy of notice. Its situation on the Delaware, and the fine fields which surround it, render it a very agreeable place of residence.

Philadelphia is situated on the Delaware, about a hundred and twenty miles from the sea. It has hitherto been the largest and most populous town in the United States; and perhaps there s not one on the continent of Europe which is built on such a egular plan. Its streets intersect each other at right angles; they re from forty-five to fifty feet wide, except that in the middle, which is double the width. It is in this that the market is built, which is remarkable for its extent and the extreme propriety with

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which it is regulated. It stands in the centre of the town. The streets are paved with and have wide foot-paths of brick. Pumps are placed on each side, at the distance of about fifty fathoms from each other, and furnish water in abundance. Each of them is surmounted by a lamp. Several of the streets contain Italian poplars, which have been planted along the paths, and are of a very fine size.

The population of Philadelphia is continually increasing: in 1749 it contained 11,000 inhabitants, in 1785, 40,000 and at present they are calculated at 70,000. The small number of negroes that are here are free, and most of them act as domestics. Provisions are rather dearer at Philadelphia than at New York, so that the price of the boarding and accommodations is from six to ten dollars per week. At Philadelphia you never meet with a beggar; no man has the appearance of misery; and that afflicting sight, so common in the towns and cities of Europe, is unknown in America, the propensity and necessity for work, added to the scarcity of hands, the consequent dearness of labour, the activity of commerce, and the independence which results from it, are the causes which militate against the introduction of mendicity, either in the towns or the districts of the country.

During my residence at Philadelphia, I was introduced to the Rev. Dr. Collin, minister of the Swedish church, and president of the Philosophical Society, Mr. John Vaughan, Messrs. Piles, and John and W. Bortram. These different gentlemen had been particularly intimate with my father, and I received from them every mark of esteem and benevolence. Mr. Piles has a fine cabinet of natural history; the legislature of Pennsylvania granted him a place to keep it in, and this is the only recompence he has received for his exertions. He is continually employed in enriching it, and increasing the number of his correspondents, both in Europe and in the most distant parts of the United States; but with the exception of a bison, I saw nothing in his collection but what may be found in the Museum of Natural History at Paris.

The absence of Mr. W. Hamilton deprived me of the advantage of seeing him; but I went to visit his magnificent garden on the banks of the Schuylkill, about four miles from Philadelphia. His collection of exotic plants is very considerable, and particularly those from New Holland. All the trees and shrubs of the United States, or at least those which are capable of passing the winter in the open air at Philadelphia, are distributed to decorate the bowers of an English garden. It is difficult to find a scite more agreeable than that of the residence of Mr. W. Hamilton.

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CHAP. III.

DEPARTURE FROM PHILADELPHIA FOR THE WESTERN COUNTRIES—COMMUNICATIONS BY LAND IN THE UNITED STATES—ARRIVAL AT LANCASTER—DESCRIPTION OF THAT TOWN AND ITS ENVIRONS—COLUMBIA—PASSAGE OF THE SUSQUEHANNA, YORK, DOVER, CARLISLE—ARRIVAL AT SHIPPENSBURGH—REMARKS ON THE STATE OF AGRICULTURE IN THE EXTENT OF THIS JOURNEY.

IN the states of Kentucky, Tennessee, and the Ohio, is comprised that vast extent of land known in America by the name of the *Western Country*. Nearly all the Europeans who have published observations on the United States, have contented themselves with remarking, according to the common report, that these countries are very fertile, but they have not entered into any particulars respecting them. It is true, that before arriving at these new establishments you are obliged to traverse a considerable extent of uninhabited tracks, and that the journies are long, difficult, and afford nothing of interest which might tend to delineate the manners of the people who inhabit the towns or other places: but as the natural history, and particularly the vegetable productions and the state of agriculture in those districts formed the principal object of my inquiries, I was under the necessity of travelling at a distance from those parts which are best known, and passing my time in such as have been but slightly mentioned. I therefore made a journey to those distant countries, and had nearly 2000 miles to travel before I could return to Charleston, where I was absolutely obliged to be by the 1st of October. My journey, I anticipated, would inevitably be impeded by various obstacles of a local nature, which it would be impossible to foresee or prevent:—these considerations, however, did not induce me to change my determination, and I fixed my departure from Philadelphia for the 27th of June 1802. As I had no wish to travel slowly, to make observations which had already been repeated by various travellers, I resolved to proceed in the most expeditious manner to Pittsburgh, situated at the head of the Ohio; and I took the stage at Philadelphia which went to Shippensburgh, by way of Lancaster, York, and Carlisle. Shippensburgh is 140 miles from Philadelphia, and is the most distant place on this road to which you can travel by the public carriages.

Till the year 1802, the stages which went from Philadelphia proceeded southwards only as far as Petersburgh in Virginia, which is about 300 miles from Philadelphia; but in the spring of that

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year a new line of communication was established between that town and Charleston. The journey requires fifteen days, the distance is about 650 miles, and the price is fifty dollars. There are likewise stages between Philadelphia, New York, and Boston, as well as between Charleston and Savannah in Georgia; so that you have the convenience of public conveyance from Boston to Savannah, the distance of which is 1,200 miles.

I reached Lancaster, which is 66 miles from Philadelphia, on the afternoon of my departure. The turnpike-roads are kept in good order, by means of tolls collected at certain distances. In this space the houses are nearly all in sight, one of another; and each owner has his inclosure. Throughout the whole of the United States the cultivated lands are all inclosed, to secure them from the ravages of all kinds of cattle, which, for the greater part of the year, are left by every proprietor in the woods that are for this purpose common to them all. In the vicinity of the towns these inclosures are made with stakes, placed at the distance of ten or twelve feet from each other, and perforated with five mortises, at the space of eight or nine inches, in which are fitted branches of trees unstripped of their bark, of a proper length, and about four or five inches in diameter. This mode of inclosing is most proper and economical, because it saves the wood which is very dear in the environs of the large northern towns; but in the interior parts and the southern states, the inclosures are made of pieces of wood of an equal length, placed one above another in a zig-zag form, and supported by their ends, which are crossed and intertwined together. The inclosures are generally seven feet high. In the lower parts of Carolina they are made of pine, but in the rest of the country, and in the whole of the north, they are of oak or chesnut. When they are kept in good order they last about five-and-twenty years.

The country before you arrive at Lancaster is very fertile; the fields are covered with corn, rye, and oats, the fine growth of which is a proof that the soil is better than that between New York and Philadelphia. The inns on the road are very numerous, and at almost all of them the people speak German. My travelling companions, who were always thirsty, caused the stage to stop at every inn that they might drink some glasses of grog. This liquor is in general use in the United States; it consists of a mixture of brandy or rum and water, the proportions of which depend upon the taste of the person who drinks it.

Lancaster is situated in a fertile and well cultivated plain. The town is built on a regular plan, and the houses, which are two stories high, are of brick. The two principal streets have, like those at Philadelphia, footpaths and pumps. The population amounts to about four thousand individuals, almost all of

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whom are of German origin, and profess different religions. Each sect have their particular church. That of the Roman Catholics is most numerous. The inhabitants are mostly gunsmiths, hatmakers, sadlers, and coopers, but amongst them are a few tanners. The gunsmiths of Lancaster have long had the reputation of being good manufacturers of rifle-guns, which are the only kind used by the inhabitants in the interior of the country, as well as by the Indian nations on the frontiers of the United States.

At Lancaster I formed acquaintance with Mr. Muhlenberg, the Lutheran minister, who for twenty years has devoted his attention to the science of botany. He shewed me the manuscript of a *Flora Lancastriensis*, in which the number of species described already amount to upwards of twelve hundred, a hundred and twenty-five of which are of grasses; this is the class which he most esteems. Mr. Muhlenberg is very communicative, and keeps up a regular correspondence with Messrs. Wildenow and Dr. Smith. I found here Mr. W. Hamilton, whose magnificent garden at Philadelphia I have already mentioned.

On the 27th of June, I left Lancaster for Shippensburgh; there were only four of us in the stage, which was capable of holding twelve persons. Columbia, situated on the Susquehanah, is the first town you arrive at; it contains about fifty unconnected houses, almost all of which are built of wood: at this place the turnpike road terminates.

It will not be useless to observe here, that in the United States they frequently give the name of town to an assemblage of six or eight houses; and that their manner of building is not every where alike. At Philadelphia the houses are of brick; but in the other towns, and even in the fields which surround them, the half, and frequently the whole of the houses are of shingles; while between seventy and eighty miles from the sea, in the Middle and Southern States, but particularly in those that lie to the westward of the Allegany Mountains, seven tenths of the inhabitants live in *log-houses*. These are made of the trunks of trees from twenty to thirty feet long, and about four or five inches in diameter, placed one above the other, and supported by being dove-tailed at the ends. The roof is constructed of pieces of the same length, as those that form the shell of the house, but they are not so heavy, and are gradually drawn together on each side: these limbs support the covering of shingles, which are fastened by means of small wooden pegs. Two doors, which often serve instead of windows, are made by sawing away a part of the trunks that form the body of the house: the chimney, which is always situated at one of the angles, is likewise made of the trunks of trees, of a convenient length. The back, which is of potters' clay, about six inches thick, separates the fire from the wooden wall; but not-

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withstanding this slight precaution, the accident of fire very seldom happens in these houses. The space between the trunks of trees is filled with clay, but in such a slovenly manner, that the light is perceptible on every side; hence these hovels are very cold in winter, notwithstanding the great quantity of wood that is burnt in them.

The doors move on wooden hinges, very few of them have locks, and at night they only push them to, or fasten them with a wooden pin. Two men will build one of these houses in four or five days, without the use either of nails or other iron-work. Two large beds serve for the whole family; and in summer the children often sleep on the ground, wrapt in a coverlet. The floor, which is planked, is raised about two feet above the surface of the soil. They use feather-beds, and not mattresses. Sheep being very scarce in these parts, wool is dear, and is reserved only for making stockings. The clothes of the family are hung round the room, or suspended upon a long pole placed across it.

At Columbia, the Susquehanah is a quarter of a mile wide. We crossed it in a small ferry-boat; and at this time, its water was so shallow, that we could easily perceive the bottom. On the banks of this river are a number of high hills, and the middle contains a variety of wooded isles, which appear to divide it into several branches: some of them are, at the utmost, only five or six acres long, and yet they are as elevated as the neighbouring hillocks. Their irregularity and singular forms, render this spot picturesque and truly remarkable, particularly at the period when I saw them, the trees being then in full leaf.

About a mile from the Susquehanah I observed the *Annona triloba*, the fruit of which is very good, though insipid: when at maturity it is the size of a hen's egg. Mr. Muhlenberg told me, that this shrub grows in the environs of Philadelphia.

Twelve miles from Columbia is York, a small and well-built town, the houses of which are connected, and almost all of brick. The number of inhabitants is reckoned at eighteen hundred. They are chiefly of German origin, and do not speak English. Six miles beyond York we passed through Dover, which consists of about thirty log-houses, built on both sides of the road, and the stage stopped at one Macolegan's, who keeps a miserable inn about fifteen miles from York. This day we only travelled thirty-eight miles.

Taverns or inns are very numerous throughout the United States, but particularly in the small towns: every where, however, except in the large towns and their environs, they are of a wretched description, though they never fail to afford brandy, rum, and whiskey. These articles are considered of the first importance, so that the profits of those who keep inns, arise chiefly

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from the sale of liquors, for which there is a great demand. Travellers generally wait till the family hour to take their meals: they are served for breakfast with bad tea, still worse coffee, and small slices of fried bacon, to which are sometimes added eggs and a broiled chicken. For dinner they give you a piece of salt beef, roast chickens, and rum and water for beverage. In the evening there is coffee, tea, and ham. There are always several beds in one chamber; clean sheets are a great rarity, and fortunate is the traveller who arrives on the day when they are changed; but this is a point on which an American gives himself little concern.

On the 28th of June we arrived betimes at Carlisle, which is fifty-four miles distant from Lancaster. It contains about two hundred houses, some of which are of brick, and several shops. In the latter, which are often met with in the interior parts of the country, are sold mercery, hardware, groceries, &c. and the purchaser is always presented with something to drink! The owners of these warehouses also buy from, or barter with, the inhabitants of the country, for the produce of their farms, which they afterwards send to the sea-ports.

From Macolegan's inn to Carlisle, the country is bad, irregular and hilly; consequently the habitations on the road are few, and are between two and three miles from each other; but out of the road they are still farther distant. The white, red, and quercitron oaks, chestnut, and maples, are the principal trees which constitute the forests in these parts. On the summits of the hills I observed the *Quercus Banisteri*. From Carlisle to Shippensburgh, the country continues mountainous, and is thinly inhabited, the soil being of a very indifferent nature.

There are only a few houses to be met with on the road, and their miserable appearance sufficiently indicates, that the circumstances of the inhabitants are far from easy, and that the produce of their agricultural labours is at most only sufficient for their subsistence.

The stage stopped at Shippensburgh, at the house of Colonel Ripey, who keeps a good inn, known by the sign of the General Washington. He is very obliging to travellers who alight at his house, when on their journey to the Western Country. Shippensburgh contains scarcely seventy houses. Its chief trade is in meal of different kinds. At the time I was there, the barrel of flour, weighing 196lb. sold for five dollars.

From Shippensburgh to Pittsburgh, the distance is 170 miles; and the stages not going farther, you are obliged to perform the rest of the journey on foot, or to purchase a horse, of which there are always many for sale; but the country-people are such cheats, that they always make you pay double the value for them; and on

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arriving at Pittsburgh, you are obliged to dispose of them for half what they cost. I was inclined, from motives of economy, to travel the rest of the way on foot; but from some remarks which were made to me, I thought proper to join with an American officer, who had travelled with me in the stage, and was likewise going to Pittsburgh; we therefore bought a horse between us, on which we rode thither by turns.

CHAP. IV.

DEPARTURE FROM SHIPPENSBURGH FOR STRASBURGH.—PASSAGE OF THE BLUE RIDGES.—NEW SPECIES OF RHODODENDRUM.—PASSAGE OF THE RIVER JUNIATA.—USE OF THE CONES OF THE MAGNOLIA ACUMINATA.—ARRIVAL AT BEDFORD COURT-HOUSE.—EXCESSES COMMITTED BY THE INHABITANTS OF THESE COUNTRIES.—DEPARTURE FROM BEDFORD.—PASSAGE OF THE ALLEGANY RIDGE AND LAUREL-HILL.—ARRIVAL AT WEST LIBERTY-TOWN.

ON the 30th of June in the morning, we left Shippensburgh, and arrived by noon at Strasburgh, a distance of about ten miles. This town, which does not contain more than forty log-houses, is situated at the foot of the first chain of the Blue-Ridges. The country through which we had passed on our way, though uneven, was better than that which leads to it: it contained many houses, and was tolerably well cultivated. After having taken a little rest at Strasburgh, we continued our journey notwithstanding the heat, which was excessive, and ascended the first ridge by an extremely rough and stony road. With much difficulty we attained the summit in three quarters of an hour, and then passed two other ridges which were equally high as the first, and which took the same direction. These three ridges form two small vallies, which contain a few houses that are built about mid-way, and in the second, which is rather more extensive, stands Fenetsburgh, consisting of about thirty houses, built on both sides of the road, and about twenty plantations or farms in the vicinity. Each of these contains from two to three hundred acres of wood-land, of which, in general, not more than seven or eight are in a state of cultivation, and very seldom more than twenty or twenty-five. The want of hands and the limited means of encouragement are serious obstacles to the progress of agriculture. In this part of Pennsylvania, every individual is satisfied with cultivating as much land as is necessary for the support of his family; and according as it is more or less numerous, the cultivated portions are more or less extensive. Hence it follows, that the more children a man has

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who are capable of assisting him in his agricultural labours, the more he is enabled to live at his ease, and this is one of the principal causes of the rapid progress which has taken place in the population of the United States.

On this day we only travelled twenty-six miles, and put up for the night at Fort Littleton, about six miles from Strasburgh, at a very good inn kept by Colonel Bird. Between Shippensburgh and this place, the mountains are very stony, and the soil is of a bad kind; so that the trees it produces, are stinted in their growth, particularly the white oak, which is found on the summit, and the *Kalmia latifolia*, which occupies all the exposed situations.

The next day we departed early in the morning, in order to proceed to Bedford Court-House. From Fort Littleton to the river Juniata, we met with but few habitations; here nothing but ridges succeed each other, the intervals of which are occupied by a number of hillocks. When on the top of the highest of these ridges, the inequality of this crowd of mountains, covered by continual forests, which extend over the country, and beyond which no habitation can be perceived, presents a picture resembling the sea after a storm.

About two miles before we come to the river Juniata, the road divides into two branches, which are reunited at that river. The right branch leads over the heights, and the left, which we followed, appeared to have been, or perhaps still is, the bed of a deep stream, the steep banks of which are extremely swampy. These banks are covered with *Andromeda*, *Vaccinium*, and, more particularly, a species of *Rhododendrum*, the flowers of which are perfectly white. The threads of the stamina are also white, and one third shorter than the corolla; the anthers are of a pale pink, and the leaves are smaller, and more obtuse, than those of the *Rhododendrum maximum*. These remarkable differences, may perhaps shew it to be distinct species. I have since met with this beautiful shrub in the mountains of North Carolina. Its seed was then ripe, and I brought some of it to France, where it has been cultivated with success.—At this place the river Juniata was only from thirty to forty fathoms wide; its water was remarkably low, and we forded over; but, during the greater part of the year, it is usual to cross in a ferry-boat. Its banks are high, and well covered with verdure. The *Magnolia acuminata* is very common here, and is known by the name of the *Cucumber-tree*. The inhabitants of the back settlements of Pennsylvania, of Virginia, and also of the Western Countries, on meeting with the fruit, when green, infuse it in whiskey, which thus acquires a strong bitterness. This bitter is much esteemed in the country, as a remedy for intermittent

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fevers; but its use would certainly be less general, if, possessing the same properties, it were made with water only.

From the place where we crossed the river Juniata, to Bedford Court-House, the country, though every where uneven, is better and more fully inhabited, than that through which we passed from Shippensburgh. The houses, though seldom in sight of each other, are sufficiently near to impart a more animated appearance to the scene. On the approach of night, we arrived at Bedford, and took up our lodging at a tavern, the master of which was known to the American officer with whom I travelled. The house was spacious, and one story high, which is unusual in these parts. The day of our arrival was a day of rejoicing to the peasantry, who had assembled at this little town to celebrate the suppression of the tax on the distilleries of whiskey, a tax of some importance, which had much irritated them against Adams, the former President. The inns, and particularly the one in which we lodged, were full of drinkers, who made an intolerable uproar, and committed such horrible excesses, as it is scarcely possible to conceive. The rooms, the stairs, and the yard, were covered with men dead-drunk, and those who were yet capable of speaking, expressed themselves in accents of fury and rage. A passion for spirituous liquors is one of the traits which characterise the peasantry of the interior of the United States. This passion is so strong, that they frequently quit their houses to get drunk at the taverns; and, if they had liquor at home, I do not believe that there are ten in a hundred who could resist the temptation of drinking as long as it lasted. In summer, however, their common beverage is water or milk. They care little for cider, which they consider as too mild, and their dislike to this salutary and agreeable beverage is the more to be regretted, as it might be obtained at a trifling expense; for apple-trees of every kind are abundant, and arrive at great perfection in this country. In both the eastern and western parts of the Allegany mountains, I have observed lofty trees, produced from pips, which bore apples from eight to nine inches in circumference.

At Bedford there are scarcely more than a hundred and twenty houses, of which some are constructed of brick, and others of shingles. This little town, like all those which have been built on this road, trades in grain, which, with salted provisions, are the only articles of exportation from these parts. During the war occasioned by the French Revolution, the inhabitants obtained greater advantages by sending their grain, &c. to Pittsburgh, whence they were conveyed by the Ohio and the Mississippi to New Orleans, there to be embarked for the Antilles, than by sending those articles to Philadelphia or Baltimore. Notwithstanding this, it is reckoned but two hundred miles from Bedford

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to Philadelphia, and a hundred and fifty miles from Bedford to Baltimore, on a well-frequented road; whilst the distance from Bedford to New Orleans is known to be two thousand two hundred miles, viz. a hundred miles by land, to Pittsburgh, and two thousand one hundred miles, by water, from Pittsburgh to the mouth of the Mississippi. Thus we perceive, that the navigation of the Ohio and of the Mississippi is easy, and of light expense, since it compensates for the enormous difference which exists between the two distances. The situation of New Orleans, relative to the Antilles, insures great advantages to this town, over all the eastern parts of the United States; and in proportion as the new States of the West increase in population, New Orleans will become the centre of an immense commerce. Other facts also occur in support of this observation.

The next day, the 1st of July, we quitted Bedford early in the morning. The heat was excessive, the ridges which we incessantly had to climb, and the little mountains which are between them, rendered travelling very laborious: so that we this day advanced only twenty-six miles. Four miles from Bedford, the road divides; we turned to the left, and stopped to breakfast at the house of a miller who keeps an inn. We there found a man lying on the ground, wrapped up in a blanket, who the night before had been bitten by a rattle-snake. The first symptoms which appeared, an hour after the accident, were violent vomitings, almost immediately succeeded by a high fever. At the time when I saw him, his leg and thigh were prodigiously swelled, his respiration was extremely difficult, and his face was bloated, resembling those whom I have had occasion to see at the hospital, afflicted with the hydrophobia. I asked him some questions, but his senses were so entirely absorbed, that it was impossible to obtain any answer: I however learned from the people of the house, that, immediately after the bite, they had applied the juice of some plants to the wound, until the arrival of the doctor, who lived at the distance of fifteen or twenty miles. In America, I have known several persons to whom the same accident has happened; those who did not die in consequence of it have ever since remained valetudinarians, and are remarkably susceptible of affections arising from the changes of the atmosphere. The plants which are used against the bite of the rattle-snake are very numerous, and are almost all of them drawn from the different species of succory. In this mountainous part of Pennsylvania, there are great numbers of rattle-snakes; many of which we found killed on the road. In hot and dry weather, they come from beneath the rocks, and conceal themselves in places which contain water.

On the same day, we crossed the ridge which more particularly

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takes its name of Mount Allegany from the Allegany ridge. We ascended by a road extremely steep, and covered with enormous stones. After a laborious march of two hours, we arrived at the summit. It is really surprising, that travelling vehicles surmount so easily, and with so few accidents, this multitude of high hills or ridges, which succeed each other without interruption, from Shippensburgh to Pittsburgh, and the intervals of which are occupied by hills of inferior elevation.

Allegany-ridge is the highest link of Pennsylvania: on its top we found two common log-houses, which are about three miles distant from each other, and which serve for inns. The rest of the country is inhabited; but these were the only houses that we met with on the road from Bedford. We stopped at the second, which is kept by a man named Chatlers, and which, for its situation, is well supplied; for dinner we obtained some slices of fried ham and venison, with cakes of wheat-flour, baked on a dish before the fire.

Notwithstanding a heavy rain, we slept this night at Stanley town, a small town, which, like all those in this part of Pennsylvania, is built on a hill. It is composed of fifty houses, half of which are log-houses, with some taverns and two or three warehouses, the merchandise of which is obtained from Philadelphia. The distance from Chatlers, is seven miles, and the intermediate country is remarkably fertile. Here are some very lofty trees: those in the woods are the white, red, and the quercitron, or lemon oak, the beech, the tulip-tree, and the *Magnolia acuminata*.

The horse that we bought at Shippensburgh, and which we mounted by turns, was extremely fatigued, and we made no greater progress than if we had been constantly on foot. Notwithstanding this, the American officer with whom I travelled, was anxious to reach Pittsburgh, in order to be present at the festival of the 4th of July, in commemoration of American independence. For the purpose of gaining a day, he hired a horse at Stanley Town, with which we went over Laurel Hill, an extent of four miles. The direction of this ridge was parallel with those which we had left behind; the wood that covers it is of a more bushy description, and the vegetation wears a more cheerful aspect. The name which has been given to this mountain is without doubt derived from the great quantity of *Kalmia latifolia*, from eight to ten feet in height, by which the open parts are exclusively occupied, while the banks of the rivers are lined with the *Rhododendrum maximum*; for both the *Rhododendrum* and the *Kalmia latifolia* obtain from the inhabitants the general appellation of *Laurel*. By some, the latter shrub is called the *Calico tree*; the leaves of which it is said are a deadly poison to sheep, which perish almost immediately after

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eating them. At the foot of Laurel Hill, commences the valley of Ligonier, in which is situated, a quarter of a mile from the mountains, West Liberty Town, composed of about twenty log-houses. The soil of this valley appears to be very fertile. It is near this place that the French, who were previously masters of Canada, built Fort Ligonier; all that part of the United States, which lies to the westward of the Allegany mountains, being dependant on Canada or Louisiana.

CHAP. V.

DEPARTURE FROM WEST LIBERTY TOWN TO THE MOUNTAINS, IN SEARCH OF A SHRUB SUPPOSED TO YIELD OIL OF A SUPERIOR QUALITY.—NEW SPECIES OF AZALEA.—VALLEY OF LIGONIER.—COAL MINES.—GREENSBURGH.—ARRIVAL AT PITTSBURGH.

ON my way to Lancaster, Mr. W. Hamilton had told me, that at a short distance from West Liberty Town, near the residence of one Patrick Archibald, there was a shrub, the fruit of which, he had been informed, yielded an excellent oil. Some persons had also heard of it at New York and Philadelphia, and had conceived the hope that, extensively cultivated, it might become of general utility. It thus appeared desirable to discover a plant, which, to the precious advantages of the olive, united that of sustaining the cold of the most northern countries. Impressed with this idea, I left my travelling companion, and proceeded among the mountains in search of that shrub. Two miles from West Liberty Town, I passed *Proboss Furnace,* a foundery established by a Frenchman from Alsace, who manufactured brass cauldrons of every description. The largest, which contain fifty gallons, are sent to Kentucky and Tenessee, where they are used in the manufacture of salt by evaporation. The others, which are much smaller, are used for domestic purposes. At the foundery, they explained to me the road which I should pursue; notwithstanding which I could not avoid deviating, for there are a number of paths, more or less agreeing with my directions, which lead to the respective houses, that are scattered about the wood; but, every where, the inhabitants obligingly set me right, and I at length arrived, the same night, at Patrick Archibald's, who made no difficulty in receiving me, when I apprised him of the cause of my visit. This man, who keeps a mill, might easily procure himself better accommodation; he lives, however, in a common log-house, with only one room, from twenty-four to thirty feet in length, and on all sides exposed to the weather. Four large beds, two of

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which being low, stand under the others during the day, and are drawn into the middle of the chamber at night, receive the whole of the family, consisting of six persons, and sometimes of strangers who come to obtain a night's lodging. This manner of living would, in Europe, indicate poverty; but not so in these countries; for, in an extent of more than two thousand miles which I have travelled, there is not a family but is possessed of milk, butter, smoked or salt meat, and maize, for their food; even the poorest man has one or more horses, and it is very seldom that a person visits his neighbour on foot. On the day after my arrival, I explored the wood, and, in my first excursion, I found the shrub which was at that time the object of my research. I knew it to be the same which my father had discovered fifteen years before, in the mountains of South Carolina, but which, notwithstanding his care, he could not bring to perfection in his garden near Charleston. Mr. W. Hamilton, who had also received some seeds and cuttings of it, from that part of Pennsylvania where I then was, had not been more successful. The seed so quickly turns rancid, that, in a few days, it loses its germinative property, and acquires an extraordinary acridity. This shrub, which seldom rises above five feet, is *diœcious*. It grows exclusively among the mountains, and is only found in cool and shady places, where the soil is very fertile. Its roots, which are of citron colour, do not branch out, but extend horizontally to a great distance, giving birth to suckers which seldom rise above eighteen inches. The roots and the bark, when bruised, emit an unpleasant odour. I directed my host to gather half a bushel of the seed, and to send it to Mr. W. Hamilton, informing him what precautions to take for its preservation until it should reach him. On the banks of the Creek on which Archibald's mill is built, and by the side of the stream in its vicinity, grows a species of *Azalea*, which was then in full blossom. It rises from twelve to fifteen feet. Its flowers are perfectly white, and are larger than those of the other known species, sending forth the sweetest scent. The *Azalea coccinea*, the flower of which is of a nasturtium colour, grows on the tops of mountains, and blossoms two months earlier.

The valley of Ligonier is fertile, producing wheat, rye, and oats. Some of the inhabitants plant maize on the tops of the mountains; but the country being too cold, it does not succeed well, the sun only appearing on this spot for three quarters of an hour after it rises. Hemp and flax are also cultivated here, each inhabitant raising a sufficient quantity for the wants of his family. All the women spin and weave, and it is they who make the clothes for themselves and their families. The price of land is from one to two dollars per acre. The taxes are very light,

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and there is no cause for complaint. In this part of the United States, as in all mountainous countries, the air is very healthful. I have seen old men, upwards of seventy-five years of age, which is very uncommon in the Atlantic States, that are situated to the south of Pennsylvania. During my journey in this county, the measles were very prevalent. At the solicitation of my host, I visited several of his relations and friends, who had been attacked by this disorder, and found them all drinking whiskey to excite perspiration. I recommended a decoction of viscid elm leaves, adding a spoonful of vinegar, and an ounce of maple sugar, to each quart. The country being rather poor, and the population small, medical men are seldom to be met with; and, if the case be urgent, they must be sent for at the distance of five and twenty or thirty miles.

I left Archibald's on the 4th of July, and proceeded to Greensburgh, a distance of eleven miles. Almost immediately on quitting the house, I had to ascend Chesnut Ridge, a steep hill, the summit of which, for an extent of two miles, exhibits a dry and barren soil, where nothing grows but a few stinted white oaks, and shoots of chesnut; but on approaching Greensburgh, the face of the country changes, the soil becomes better, and the houses, though surrounded by wood, are nearer to each other than those in the valley of Ligonier. The larger houses commonly consist of rwo rooms. The superior cultivation of the land, and preservation of the inclosures, indicate this to be a German settlement, or canton: every thing has the appearance of ease, the result of assiduity and labour. These settlers assist each other in the harvest; they form alliances together, speak only in the German tongue, and retain, as much as possible, the manners of their European ancestors. They live much better than the Americans, descendants of the English, Scotch, and Irish. They are less addicted to the use of spirituous liquors, and possess not, like them, that unsettled disposition, which frequently, from the slightest motives, induces them to wander hundreds of miles in the hope of meeting with a more fertile soil.

Before I arrived at Greensburgh, I observed some parts of the forest, consisting exclusively of white oaks, *quercus alba*, the foliage of which was of a more delicate green, agreeably bordering on trees of other species of a deeper colour. A mile from the town, and on the banks of a deep ravine, I perceived some certain signs of a mine of sea-coal. I learned, at Greensburgh, and at Pittsburgh, that this substance was so common, and so easily to be procured, that many of the inhabitants burnt it from economy. Wood is not scarce, for the whole country is covered with it; but labour is so extremely dear, that there is

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not a landholder at Pittsburgh who would not dispose of a cord of wood for half the sum which must be paid for coals, on condition that the purchaser would travel a mile to fell the trees, cut them up, and carry them home.

Greensburgh contains about a hundred houses. This town is built on the top of a hill, on the road from Philadelphia to Pittsburgh: on all parts of the road are seen numbers of emigrants, who go to settle near the lakes. The soil of the environs is fertile; and the inhabitants, who are of German origin, successfully cultivate wheat, rye, and oats, which they export to Pittsburgh.

I lodged at the *Seven Stars*, a good inn, kept by a man named Erbach. Here I met a traveller who had come from the State of Vermont, and who slept in the same room with me. Without explaining our motives for travelling, we communicated to each other our remarks on the countries through which we had passed. He had come six hundred miles from the place of his residence, and I had come four hundred from New York. He proposed that we should proceed together as far as Pittsburgh. I observed that I was on foot, and assigned my reasons for it; because in America it is very unusual to travel in this manner, the poorest inhabitant always having one or more horses.

From Greensburgh to Pittsburgh the distance is computed to be thirty-two miles, over a very mountainous road: to avoid the heat, and to accelerate my progress, I set out at four o'clock in the morning. I had no difficulty in leaving the house, the door being only on the latch; at the inns of small towns, on the contrary, great care is taken to lock the doors of the stables, for horse-stealers are not uncommon in certain parts of the United States. This is one of the accidents to which travellers are most liable, particularly in the Southern States, and in the Western parts, where they are sometimes obliged to sleep in the woods. They often steal them from the inhabitants, which is extremely easy, as, during a part of the year, the horses live in the forests, and in the spring they go several miles distant from the house; but, on the slightest indication of the route which the thief has taken, the sufferer pursues him to the utmost, and sometimes succeeds in taking him; in that case he confines him in the prison of the county where he takes him; or, what is very usual, kills him on the spot. In the different States, the laws against horse-stealing are extremely severe, and the motive for this severity appears to be the facility with which in this country the crime is committed.

I had gone fifteen miles, when I was rejoined by the American traveller whom I had met the night before at Greensburgh. Though on horseback, he had the politeness to slacken

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his pace, and I accompanied him to Pittsburgh. This second interview made us more fully acquainted. He informed me that it was his intention to descend the Ohio; and as I had the same view, I conceived a wish to make the journey with him, the more willingly as he was not a lover of whiskey; for, compelled by the heat to make frequent stoppages at the inns, which are sufficiently numerous on the road, I observed that he drank only a little of that liquor with water, and that he preferred sour milk when he could obtain it. In this respect, he was very different from the American officer, with whom I had travelled all the way from Shippenburgh.

Nineteen miles from Greensburgh, to the left, we found a road which cuts off about three miles, but which is only passable for people on foot or on horseback; we followed it, and, after half an hour's progress, we perceived the river Monongahela, by the side of which we kept till within a small distance from Pittsburgh. A heavy shower obliged us to take shelter in a house about two hundred yards from the river. The master, finding us to be strangers, informed us that this was the place where, in the Seven Years' War, the French completely defeated General Braddock; he pointed out to us several trees, which had been damaged by the balls, and the injury of which was still apparent.

We arrived tolerably early at Pittsburgh, and I went to lodge with a Frenchman, named Marie, who keeps a good inn. I was the more pleased at my arrival, as I began to be tired of travelling in so mountainous a country; for, in an extent of a hundred and eighty miles which I had traversed almost wholly on foot, and during the greatest heats, I do not believe that I went a hundred yards on level ground.

CHAPTER VI.

DESCRIPTION OF PITTSBURGH.—COMMERCE OF THIS TOWN AND THE ADJACENT COUNTRY WITH NEW ORLEANS.—CONSTRUCTION OF VESSELS OF HEAVY BURDEN.—DESCRIPTION OF THE RIVERS MONONGAHELA AND ALLEGANY.—TOWNS WHICH ARE SITUATED ON THEIR BANKS.—AGRICULTURE.—MAPLE-SUGAR.

PITTSBURGH is situated near the conflux of the rivers Monongahela and Allegany, the junction of which forms that of the Ohio. The level ground on which it is built is not more than from forty to fifty acres in extent. It is a triangle, the sides of which are confined, on all parts, either by the bed of

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the two rivers, or by the mountains. The houses are mostly of brick, and may be computed at about four hundred, the greater number of which are built on the Monongahela, and on that side is the most commercial part of the town. As many of the houses are not contiguous, but are separated by considerable spaces, the entire surface of the angle is occupied, and they have already begun to build on the sides of the high hills which command the town. It was at the upper part of the angle, that the French constructed the Fort Duquesne, but which has been entirely destroyed, nothing remaining but the vestiges of the surrounding fosses. We here enjoy a delightful view, produced by the perspective of the three rivers, the banks of which are shaded by forests, particularly those of the Ohio, which extends in a right line, and permits the eye to follow its course to a considerable distance.

The air of Pittsburgh and its neighbourhood is very healthful; intermittent fevers, so common in the Southern States, are here unknown; nor are the inhabitants tormented with musquitoes during the summer. Here also they live one third cheaper than at Philadelphia. Pittsburgh contains two printing-offices, each of which publishes two newspapers per week.

Pittsburgh has long been considered by the American Government as the key of the Western Countries. It was from thence that the federal forces were sent against the Indians, who opposed the first establishment of the Americans in Kentucky, and on the banks of the Ohio. But now that the Indian nations have been driven back to a great distance, and deprived of the power of annoying the inhabitants, even in the remotest parts of the interior; and the Western Countries having also acquired a vast population, there is at Pittsburgh only a weak garrison, in pallisaded barracks, contiguous to the town, on the bank of the river Allegany.

But though this town has lost its importance as a military post, it has acquired more in point of commerce. It is the *dépôt* of merchandize from Philadelphia and Baltimore, sent thither at the commencement of spring and autumn, to supply the States of the Ohio and Kentucky, and of the settlement of Natches. Through these towns, in the course of last war, they communicated also with New Orleans, sending their goods by the way of the Ohio and the Mississippi.

The conveyance of merchandize from Philadelphia to Pittsburgh, is performed in large covered waggons, drawn by four horses, harnessed two a-breast. The price of the carriage varies according to the season; but seldom exceeds six dollars per *cwt*. The distance is computed to be three hundred miles from Philadelphia to Pittsburgh, and the carriers perform the journey

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in twenty or four and twenty days. The charge of conveyance is not high, for the waggons generally return empty; sometimes, however, from Philadelphia or Baltimore, they bring skins, which come from the Illinois or from Ginseng, and which are commonly met with in that part of Pennsylvania.

Pittsburgh is not only the depository of the merchandize of Philadelphia and Baltimore, with the Western Countries, but also of numerous settlements that are formed on the Monongahela and the Allegany. The territorial produce of these countries finds an easy and advantageous channel through the Ohio and the Mississippi. Grain, hams, and bacon, are the principal articles which are sent to New Orleans, whence they are re-exported to the Antilles. Bar-iron, coarse linen cloths, bottles made at Pittsburgh, brandy, whiskey, and butter in casks, are also exported for the consumption of Louisiana. Great part of these stores come from Redstone, a small but commercial town, situated on the Monongahela, at the distance of fifty-five miles beyond Pittsburgh. These united advantages have, in the course of ten years, increased the population and value of property in this town in a ten-fold degree, and continue to assist its growth, which daily becomes more rapid. Most of the merchants who are established at Pittsburgh and its environs, are either partners or factors of commercial houses in Philadelphia. Their agents at New Orleans dispose of as much goods as they can for ready money; or they will take cotton, indigo, and clayed sugar, the production of Lower Louisiana, in exchange. These they forward by sea to the houses in Philadelphia and Baltimore, whence they come by land to Pittsburgh and its neighbourhood, where most of them reside. Notwithstanding the length of the passage from New Orleans to either of these ports is from five and twenty to thirty days, and that then they have to make a journey by land of three hundred miles to return to Pittsburgh, they prefer that way, because it is less laborious than the return by land from New Orleans to Pittsburgh; this last distance being from fourteen to fifteen hundred miles. But when the vessels are bound only for Limeston, in Kentucky, or for Cincinnati in the State of the Ohio, the conductors return by land, thus making a journey of from four to five hundred miles.

The navigation of the Ohio and of the Mississippi is so much used, that the distance from Pittsburgh to New Orleans, is ascertained with sufficient exactness, and has been settled at 2100 miles. Merchant vessels, in spring, generally allow forty-five, or fifty days to perform this passage; but two or three persons in a *pirogue*, or Indian bark, may accomplish it in twenty or five and twenty days.

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What many people are perhaps ignorant of in Europe is, that, at Pittsburgh, and on the Ohio, are constructed vessels of heavy burden. One of the principal docks is on the Monongahela, at the distance of 400 yards beyond the extremity of the town. The sorts of timber used in their construction are:—The white oak, *quercus alba;* the red oak, *quercus rubra;* the black oak, *quercus tinctoria;* a species of walnut tree, *juglans pignut;* cherry tree, *cerasus virginiana*; and a species of pine, which is employed as well for the masts, as for those parts of the ship which require a lighter wood. All these woods growing near, the expences of building are here considerably less than in the ports of the Atlantic States. The ropes are manufactured at Redstone and at Lexington, where two fine rope-walks have been established, which also furnish rigging for the ships that are built at Marietta and Louisville. On my passage to Pittsburgh, in the month of July 1802, there were on the stocks, a ship of three masts*, of 250 tons, and a galliott of 90, which were on the point of being finished. In the following spring, they were to go down to New Orleans, freighted with the productions of the country, performing a passage of about 733 leagues, before they arrive at the ocean. From what follows, there is no doubt but that they might equally construct vessels at the distance of 200 leagues above the mouth of the Missouri, of fifty from that of the river Illinois, and even in the Mississippi, and at 200 above the fall of these rivers; that is to say, at 650 leagues from the sea; for their bed, in the space alluded to, is as deep as that of the Ohio, at Pittsburgh, and it would be erroneous to suppose that the countries through which these rivers pass, may not, ere long, be so peopled as to render them capable of similar undertakings. The rapid population of the three new Western States, under circumstances infinitely less favourable, strengthens this assertion. These states, which thirty years ago contained scarcely 3000 inhabitants, now possess more than 40,000; and, among all the habitations, which on the road are seldom at a greater distance than four or five miles, it is very rare to meet with one, even among the most flourishing, where one might not confidently enquire of the proprietor, whence he had emigrated; or, after the manner of the Americans,—*From what part of the world did you come?* As if these vast and fertile regions ought to be considered as the central point, and the common country of all the inhabitants of the globe. Now, if we reflect on these rapid and astonishing improvements, what expectations may not be formed, of the high degree of pro-

* Since my return, I have been informed that this ship, called the Pittsburgh, had arrived at Philadelphia.

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sperity to which the western countries may be raised, and of the new progress which the commerce, population, and culture of these parts will make, by the uniting of Louisiana to the American territory?

The river Monongahela rises in Virginia, at the foot of Laurel Hill, which forms part of the chain of the Allegany mountains; turning immediately to the west, it passes into Pennsylvania; and, before it joins the Allegany, it receives in its course the rivers Chéat and Youghiogheny, which come from the south-south-east. The territory watered by this river is extremely fertile; and the settlements which have been formed on its banks are nearly contiguous. At Morgan-Town it begins to be navigable. This town, consisting of sixty houses, is situated on the right bank, at the distance of 107 miles from its mouth. Of all the little towns on the Monongahela, trade flourishes most in those of New Geneva and Redstone. The first has a glass-house, solely for the manufacture of bottles, which are exported to the western countries. In the second, which contains 500 inhabitants, there are flour-mills, a rope-walk, and a paper-manufactory. At this town, a number of emigrants, from the Eastern States, embark for those of the West. Here, also, they build large boats, called *Kentucky boats*, which are used in the Kentucky trade. At Elizabeth Town, situated on the same river, twenty-three miles from Pittsburgh, similar boats are likewise constructed; and from that place, they launched *The Monongahela Farmer*, a trading vessel of two hundred tons burden.

The Allegany rises at the distance of fifteen or twenty miles from lake Erie; and is enlarged in its progress by the French Creek, and other little rivers still less considerable. The Allegany begins to be navigable, two hundred miles from Pittsburgh. The banks of this river are fertile; and the inhabitants who have there formed settlements, as well as those on the Monongahela, export the produce of their culture by the way of the Ohio and the Mississippi. On the side of this river, some small towns are now building, the most considerable of which are Meadville, situated at the distance of two hundred and thirty-five miles from Pittsburgh; Franklin, at two hundred; and Freeport, at only one hundred. Neither of these at present contains more than forty or fifty houses.

Whatever may be the state of the weather, the waters of the Allegany are clear and transparent; those of the Monongahela, on the contrary, become turbid after it has rained for some days in that part of the Allegany mountains where it derives its source.

The maple-sugar tree is very common in all that part of Pennsylvania which is watered by the Monongahela and the Allegany.

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This tree mostly delights in cold, wet, and mountainous countries, and its sap abounds in proportion to the severity of the winter. The sugar which is extracted from it, is of as dark a colour as that of clayed-sugar after the first baking; it is sold in loaves of six, eight, and ten pounds, at the rate of fourteen sols or seven pence per pound. The inhabitants manufacture it only for their own consumption; most of them take tea and coffee every day, but they only use that sugar, which is obtained by the first evaporation of the sap; as, on account of the great expence which would attend the process, no person is employed in refining it.

CHAP. VII.

THE OHIO.—NAVIGATION OF THAT RIVER.—MR. S. CRAFT.—OBJECT OF HIS JOURNEY.—INFORMATION RESPECTING THE STATE OF VERMONT.

THE Ohio, formed by the junction of the rivers Monongahela and Allegany, appears to be rather a continuance of the former than of the latter, which only obliquely arrives at the conflux. To Pittsburgh, the Ohio may be about two hundred fathoms wide. The course of this immense and magnificent river, for about five and twenty miles, is directed to the north-west; it then gradually turns to the west-south-west; follows that course for a space of five hundred miles, turns from thence to the south-west, for a hundred and sixty miles; then to the west, for two hundred and seventy-six; and at length falls into the Mississippi, in a south-east direction, in the latitude of 36°, 46′, one thousand one hundred miles from Pittsburgh, and at nearly the same distance from New Orleans. This river is extremely tortuous; so much so, that, in descending it, we frequently appear to be going in a direction opposite to that which was proposed to be taken. Its width varies from four hundred to two thousand yards. The islands which it meets in its course are extremely numerous; in an extent of from three hundred and seventy-five to three hundred and ninety miles, I counted nearly fifty. Some contain only a few acres; others are more than a mile in length. Their banks are not very high, and they must consequently be subject to inundations. These islands greatly impede navigation during the summer. The sand which the river carries with it, forms, at the head of each of them, a considerable land-fall; and, in that season, the channel is so contracted from the want of water, that the few boats, even of moderate size, which then hazard a descent, frequently run a-ground, and are with much difficulty again set

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afloat; but at all times there is sufficient water for a canoe or a skiff. As these boats are very light, when they touch the high grounds, they can easily be raised or pushed forward, till they reach a part where there is more water. It is only then in spring and autumn that the Ohio is navigable, at least to Limestone, a distance of four hundred and twenty-five miles from Pittsburgh; for, beyond that, it is open at all times. In these two seasons, the waters are so high, that vessels of three hundred tons burden, conducted by men well acquainted with the river, may go down in perfect safety. The spring season commences in February, and lasts for three months; that of the autumn begins in October, and continues only till the 1st of December. These periods, however, are hastened or retarded, according as the summer happens to be more or less rainy, or as the rivers thaw sooner or later. It sometimes happens, too, that in the course of the summer an abundance of rain falls in the Allegany mountains, which suddenly swells the Ohio. A descent may then be made with perfect safety; but no dependance should be placed on such circumstances.

The banks of the Ohio are high and firm; and its course is free from that crowd of obstacles which renders the navigation of the Mississippi difficult, and often dangerous, without very able conductors. On the Ohio, vessels may proceed without danger during the night; but, on the Mississippi, prudence requires that they should stop every night, at least from the mouth of the Ohio to Natches, for a space of nearly seven hundred and fifty miles.

The rapidity of the current of the Ohio is very great in spring, and, in that season, rowing is not necessary; the excess of motion which that process would give the boats, would rather impede, than facilitate their progress, by turning them out of the current, or by throwing them on a point of some island, where they might be entangled among rotten trees, that are sometimes collected together, half under water, and from which it is not easy to get disengaged. They should therefore be left to the current, which is always strong enough to carry them with great celerity, and which is always most rapid in the middle of the channel. The extreme rapidity of the Ohio induces the builders to give a peculiar form to the boats which are employed in its navigation; this form is not calculated to accelerate their progress, but to render them subordinate to the swiftness of the current. All the boats which are used in the Kentucky and Mississippi trade, as well as those that convey the families from the eastern to the western states, are constructed in the same manner. Their shape is that of a square, more or less lengthened, the sides of which are raised about four feet and a half above the water; their length is

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from fifteen to fifty feet; and their width, ten, twelve, and fifteen feet; the two extremities of which are not sloped like those of common boats. A little deck, made of slate, like those of houses, covers one end of the boat. Under this deck they pass the night, and seek shelter when it rains. I was alone, by the side of the Monongahela, when I first saw, at a distance, five or six of these boats, which were going down the river. I could not conceive what such large square boxes could be, which seemed abandoned to the current, presenting alternately their ends, their sides, and even their angles. As they advanced, I heard a confused noise, without distinguishing any thing, on account of the height of the sides. On ascending the banks of the river, I perceived in these boats several families, bringing with them their horses, cows, fowls, dismounted carts, ploughs, harness, beds, instruments of husbandry; in short, all the furniture requisite for house-keeping, agriculture, and the management of a farm. These people had thus abandoned themselves to the water, for several hundred miles, probably without knowing where they might stop, to exercise their industry, and to enjoy in peace the fruit of their labours, under one of the mildest governments in the world.

I remained ten days at Pittsburgh; during which, I frequently saw M. le Chevalier Dubac, an old French officer, who, compelled by the events of the Revolution to quit France, went to live at Scioto, but soon changed his residence, and settled at Pittsburgh, where he engaged in commerce. He possesses a very correct knowledge of the western countries, and is perfectly acquainted with the navigation of the Ohio and Mississippi, having made several voyages to New Orleans. To the small number of his countrymen who resort to these parts, he gives, with all possible politeness, such directions as may facilitate their voyage, and prevent the accidents which might befal them.

During my stay at Pittsburgh, I was particularly intimate with my travelling companion, Mr. Samuel Craft, an inhabitant of the State of Vermont, whom I had met, for the first time, at Greensburgh. Among other things, I learned from him, that, in that State, and those which are contiguous, the expences incurred by the clearing of the land are always defrayed by the produce of the pot-ash, which is obtained from the ashes of the trees that are burnt; and that there are people who will undertake this clearance or grubbing up, on the sole condition of having the pot-ash. This kind of management, indeed, is not prevalent in the rest of North America; for, in all the States to the eastward of New York, and in those of the west, the trees are burnt at an entire loss: yet it is true, that the inhabitants of New England, properly so called, which comprehends all the States to the eastward of New York, are known to be, of all the

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Americans, the most enterprising, the most industrious, and, above all, those who are best acquainted with domestic economy.

Mr. Craft now informed me, that the motive of his journey, was to ascertain, from actual observation, whether all that had been reported of the salubrity and extraordinary fertility of the banks of the river Yazous were correct; and, in that case, to obtain for himself and some friends several thousand acres of land, and to come there and settle with some families, of moderate competence, in his neighbourhood. His intention of emigrating to a country so distant, was founded, in one respect, on the length of the winters, which, in the State of Vermont, are as severe as in Canada, and repress the exertions of the inhabitants for more than a third of the year; and in another, on account of the small value of the produce of the country. On the contrary, in the districts which are watered by the river Yazous,* the temperature of the climate, and the fertility of the soil, permit the cultivation of cotton, indigo, and tobacco; the produce of which is much more lucrative than that of the northern part of the United States, and of which the sale is certain, by its exportation to New Orleans, whither you may go and return by the river, in less than a fortnight.

CHAP. VIII.

DEPARTURE FROM PITTSBURGH FOR KENTUCKY; JOURNEY BY LAND AS FAR AS WHEELING.—STATE OF AGRICULTURE ON THAT ROAD.—WEST-LIBERTY-TOWN IN VIRGINIA.—WHEELING.

MR. Craft and I agreed to go together as far as Kentucky, by the Ohio; preferring that way, though longer by a hundred and forty miles, than that by land, which is more expensive. But as at that season, the waters were at the lowest, to gain time, and to avoid a considerable winding of the river, on quitting Pittsburgh, we were advised to embark at Wheeling, a little town situated on the Ohio, eighty miles lower, following the course of the river, but a much less distance by land. On the 14th of July, at night, we set out on foot, and crossed the Monongahela, at John's Ferry, situated on the opposite bank, at the bottom of *Coal-hill*, a very high hill, which, on this side, extends along the river a considerable way.

After travelling for about a mile and a half, close along the banks of the Ohio, we entered a wood, and retired to rest in an execrable inn, on Charter Creek, where there was only one bed allotted for travellers. When several persons meet together,

* The river Yazous falls into the Mississippi, between the thirty-second and thirty-third degree of latitude.

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those who arrive last, lie on the floor, wrapped in their coverlet, which they always carry with them, when they undertake a journey into the distant parts of the United States.

On the following day we travelled 28 miles, and stopped at the house of one Patterson. On this road, the dwellings are two or three miles distant from each other; and they are here more numerous than in the interior of the country;—a circumstance which is also observable on all the roads which cross these regions. The inhabitants of this part of Pennsylvania are extremely regular in their morals, and very religious; we saw in some places insulated churches in the woods, and, in others, pulpits for preaching, placed under large oaks. Patterson has a pretty considerable farm; and a good corn-mill erected on a small river: he sends his flour to New Orleans. Rivers and creeks are of rare occurrence in this part of Virginia, so that they are obliged to have recourse to mills turned by horses; but the flour thus obtained, is consumed in the country, as it does not here constitute an article of commerce. No one has thought of building wind-mills; notwithstanding there are, on the tops of some hills, tolerably clear and extensive spots, which would be convenient for that purpose.

On the 16th of July, we arrived at Wheeling, extremely fatigued; we were on foot, and the heat was intense: our walk was rendered more difficult by the nature of the country, which is covered with hills that lie very close together, and whose summits cannot be attained in less than twenty or twenty-five minutes. Six miles from Patterson's house, appears the line of demarcation, which separates Pennsylvania from Virginia; and which intersects the road at a right angle. This line is formed by large trees, which have been felled on the eminences, from 30 to 40 feet in breadth. Twelve miles before we reached Wheeling, we passed West-Liberty-Town; a small place, consisting of 100 houses, and built on a hill. Dwellings are numerous in its vicinity; and the soil here, though unequal, is fertile. Its produce is various; yielding from 15 to 20 bushels of corn per acre, when it is perfectly cleared; and affording only from 12 to 15, when the operation has not been completely performed; that is, when there are several stumps of trees remaining; for, when a spot of ground is about to be cleared, they begin with felling the trees at the distance of two feet from the earth, and afterwards gradually remove the stocks. It is worthy of remark, that the inhabitants give only one ploughing; that they use no manure; and that they never suffer the land to lie fallow. The rent of these lands is regulated by their quality. The best, in the proportion of twenty or twenty-five acres cleared in a lot of two or three hundred, are not worth more than from three to four dollars per acre: the taxes to which they are subject, are from one to two *sous* an acre. Hands

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being scarce, labour is very dear, and bears no proportion to the price of the productions: hence it follows, that in all the Middle and Southern States, about fifty miles from the sea shore, every proprietor clears only a little more than he can cultivate with his family, or with the mutual aid of some neighbours. This applies particularly to the Western Countries, where each individual can easily procure land, and is stimulated to labour by the incomparable fertility of the soil.

A mile and a half from West Liberty Town, the road passes through a narrow valley, four miles in length, the lofty banks of which are in some places five and twenty or thirty feet in height; and discover horizontal strata of sea-coal, from five to six feet in thickness. This mineral is very common in all this part of Pennsylvania and Virginia; but, as this country is only a continued forest, and its population is thin, considering its immense extent, these mines are not worked. They might be opened with advantage, if they were situated in the Eastern States; where sea-coal, imported from England, is burnt in the great towns, on account of the extreme dearness of wood.

The trees, which grow in this valley, lie very closely together: their diameter is very great; and they are in more variety than in the countries I had hitherto crossed. These indications of an uncommonly fertile soil are observable in all those vallies, where, as in the present, there run large streams or creeks, which fall into the Ohio; and the land of which partakes much of the nature of the flats bordering on that river, while it presents nearly the same productions.

Wheeling, which stands on one of the lofty banks of the Ohio, has only been erected about twelve years. At present there are computed to be about sixty-six houses built with shingles; which, as in all the rising towns of the United States, are separated one from another by an interval of several fathoms. This little town is confined by a long ridge, from one hundred and eighty to two hundred fathoms in height, and the base of which is only about two hundred fathoms distant from the river. In this intervening space the houses are erected: they form only one street, in the centre of which passes the road, that follows the course of the river upwards of two hundred miles. It contains from twelve to fifteen shops, well supplied; whither the inhabitants, who are settled for twenty miles round, resort to purchase provisions. This small town also participates in the export trade, carried on by Pittsburgh with the Western Countries. Many merchants of Philadelphia prefer sending their commodities hither, though the distance is greater by upwards of a day's journey, than to the former place: but this trifling inconvenience is amply compensated by the benefit derived from avoiding the long circuit which the Ohio takes, af-

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ter it leaves Pittsburgh; where the very numerous shallows, and slowness of the current during summer, impede navigation.

We resided at Wheeling in the house of Captain Reymer, who keeps a tavern, known by the sign of the Waggon, and who takes boarders at the rate of two dollars a week. This price is to him a very good one, provisions being cheap in the country: a dozen fowls cost only a dollar; and the quintal of flour sold at that time for no more than one dollar and a half.

CHAP. IX.

DEPARTURE FROM WHEELING FOR MARIETTA.—PROSPECT ON THE BANKS OF THE OHIO.—NATURE OF THE FORESTS.—EXTRAORDINARY SIZE OF SOME TREES.

ON the 18th of July, in the morning, we purchased a piro gue or canoe, about twenty-four feet long, eighteen inches wide, and as many in depth. These canoes are always made of the single trunk of a tree. The pine and tulip-tree are employed for this purpose preferably to any other, their wood being lighter. These canoes are too narrow to work easily with an oar, and are moved forward by means of a paddle, or with a pole, in shallow water. Being sometimes obliged, in order to shorten our journey, to leave the shady banks of the river, and go into the middle, or to pass from one point to another; in consequence of being exposed to the inconvenience of a burning sun, we covered our canoe, for one quarter of its length, with a piece of canvass stretched on two hoops. In less than three quarters of an hour, all our arrangements were made for continuing our voyage. We were, however, compelled to defer our departure till the afternoon, that we might attend to our supply of bread, which travellers are liable to want on this route; because the inhabitants, who reside at a distance from each other on the banks of the river, are themselves often scantily supplied with provisions. It is therefore proper to take precaution previous to departing, and to renew one's stock in the little towns that occur on the way.

We left Wheeling at six o'clock in the evening. We made twelve miles that evening, and stopped for the night on the right bank of the Ohio, which forms the boundary of the government, denominated the Territory North West of the Ohio, and which is at present admitted into the Union, under the name of the State of the Ohio. Although we had advanced only twelve miles, we were, nevertheless, fatigued, less from paddling continually, than from remaining constantly in a sitting posture, with extended legs. Our canoe, the bottom of which was very narrow, compelled us to keep that position: the slightest motion would have exposed

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us to upset. At the expiration of a few days, however, custom caused these inconveniencies to disappear, and we proceeded on our journey, with comparative ease and comfort.

We were three days and a half on our way to Marietta, which is 100 miles distant from Wheeling. Our second day's progress was 30 miles; the third, 40; and on the morning of the fourth day, we reached that small town, which is situated at the mouth of the Great Muskingum. On the first day, being entirely occupied with this mode of travelling, which to us was altogether novel, and did not appear to me a very safe one, I did not carry my observations to any extent; but, on the succeeding day, being more accustomed to such a method of navigation, I noticed with greater tranquillity, from our canoe, the prospect afforded by the banks of that noble river.

On leaving Pittsburgh, the Ohio flows between two ridges or lofty hills, nearly of the same height, which we thought to be from 150 to 200 fathoms, occasionally their summits appeared to be irregular; on the contrary, at other times, they seemed to be perfectly level. These ridges continue, uninterruptedly, for the space of a few miles, when there is a small interval observable, that sometimes affords a passage to the rivers which fall into the Ohio; but, most commonly, another hill, of equal height, arises at a small distance from the spot where the preceding eminence has terminated. These ridges also extend through a space of about three hundred miles; and, from our canoe we could observe them with various degrees of distinctness, in proportion as they were more or less remote from the banks of the river. Their direction is parallel to the chain of Allegany Mountains; and, notwithstanding they are sometimes distant from these from 80 to 100 miles, and from that to the extent of one or two hundred, yet they cannot but be considered as a continuation of these mountains. The whole of that part of Virginia, which is situated on the left bank of the Ohio, is extremely mountainous, covered with forests, and thinly peopled: such at least is the account given me by the inhabitants of the banks of the Ohio, who go every winter to hunt wild bears in these desert regions. The name of *River's-Bottoms*, and also of *Flat-Bottoms*, is given to the flat spots of land covered with wood, which are comprised between the foot of the hills just mentioned, and the banks of the river; and which are sometimes from five to six miles in breadth. Most of the large and small rivers that fall into the Ohio have similar *River's-Bottoms*; which, as well as those here spoken of, are easy to cultivate, but by no means equal in point of fertility to the banks of the Ohio. The soil is a genuine vegetable mould, formed by the thick bed of leaves with which the land is annually loaded, and which is speedily converted into

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earth by the moisture prevailing in these thick forests. But, what adds still more to the depth of these successive strata of vegetable soil, is the vast trunks of trees, that have fallen by age, with which the ground is every where strewed; and which are rapidly decaying. For upwards of a thousand leagues of the countries, through which I have passed at different times, in North America, I do not recollect to have seen one, which could be compared to this for the vegetative power of the forests. The finest grounds of Kentucky, and of part of Tennessee, that lie beyond the mountains of Cumberland, afford equally abundant quantities; but the trees there do not attain so considerable a thickness and height as on the banks of the Ohio. Thirty-six miles before we reached Marietta, we stopped at the house of an inhabitant of the right bank; who shewed us a plane tree, the *Platanus occidentalis*, the trunk of which was, to the height of two feet, tumefied in a wonderful manner: we measured it four feet above the surface of the earth, and found it forty-seven feet in circumference. It appeared to preserve the same dimension to the height of fifteen or twenty feet; when it divided itself into several branches of a proportionable size. Nothing externally announced this tree to be hollow; I ascertained this circumstance as far as it was possible, by striking it in several places with a log. Our host informed us, that, if we would pass the day with him, he would shew us trees of equal size in other parts of the wood, at the distance of two or three miles from the river. This fact confirms the observation made by my father, when travelling in these districts, that the tulip-tree and plane-tree are the only trees in North America which attain so great a diameter.

"Fifteen miles," said he, "above the river Muskingum, in a small island of the Ohio, there is a plane-tree, the *Platanus occidentalis*, the circumference of which, at the height of five feet from the earth, where the stem is most uniform, is forty feet four inches, which makes about thirteen feet in diameter. Twenty years before I passed it, General Washington had measured this identical tree, and found it nearly of the same dimensions. I have also measured plane-trees in Kentucky, but I observed them to be only from fifteen to sixteen feet in circumference.—This tree grows in moist situations.

"The largest tree in North America, next to the plane, is the tulip-tree, *Liriodendron tulipifera*, denominated *Poplar* by the Americans of the Western Countries. It is sometimes fifteen, sixteen, and even eighteen feet in diameter. Kentucky is the native country of the tulip-tree; between Beard-town and Louisiana, we saw a few spots in the woods, which consist of that tree alone. The soil is argillaceous and moist, but never inundated."

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The trees usually found in the forests on the banks of the Ohio, are the plane-tree, *Platanus occidentalis*; the tulip-tree; the beech-tree; the *Magnolia acuminata*; the *Celtis occidentalis*: the *Acacia*; the sugar-maple; the red-maple; the *Populus nigra*; and several species of walnut-trees. The most common shrubs are: the *Annona triloba*; the *Euonimus latifolius*; and the *Laurus benzoin*.

CHAP. X.

MARIETTA.—SHIP-BUILDING.—DEPARTURE FOR GALLIPOLI.—MEETING WITH A KENTUCKY BOAT.—POINT PLEASANT.—THE GREAT KENHAWAY.

MARIETTA, the chief of the settlements of the New-Continent, in the State of the Ohio, is situated on the left bank of the Great Muskingum, at its conflux with the Ohio. This town, which fifteen years since was not in existence, is already composed of two hundred houses, some of which are built of bricks, but most of them are constructed only with planks; almost all of them front the Ohio. The hills, which line that river from Pittsburgh, appear at Marietta at some distance from its banks, and leave a pretty considerable tract of level ground, which will facilitate in every respect the enlargement of that town on a regular plan, and will enable its inhabitants to make the most beneficial and agreeable arrangements; while it will not have the inconvenience of Pittsburgh, which is contracted by the lofty hills, that surround it.

The inhabitants of Marietta first formed the idea of exporting directly to the Antilles the produce of the country, in a vessel built in their town, which they sent to Jamaica. The success, which attended this first experiment, excited such a spirit of enterprise among the inhabitants of this part of the western countries, that new ships were launched at Pittsburgh and Louisville, and dispatched directly for the islands, or for New York and Philadelphia. The docks of Marietta are situated in the vicinity of the town, on the Great Muskingum. At the time I passed them, there were three brigs building, one of which was 220 tons burthen. The work was superintended by master-builders who had come from Boston.

The river Muskingum has its source near Lake Erie: it is navigable only for 250 miles from its disemboguing itself into the Ohio, where it is sixty fathoms in width. The country through which it flows, and especially its banks, are fertile. Houses appear for 200 miles above Marietta.

At a small distance from this town, we saw the remains of

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some ancient earthen works, supposed formely to have been thrown up by the Indians as fortifications. When they were found, they were covered with trees of the same nature as those of the neighbouring forests, some of which were even more than three feet in diameter. These trees have been felled, and the soil is at present almost entirely cultivated with maize.

Major General S. Hart, whose son I knew at Marietta, has given in the *Columbia Magazine*, for 1787, vol. 1. page 9, a plan and very minute description of these ancient Indian works, a translation of which is inserted in the Travels in Upper Pennsylvania. That officer, who was of distinguished merit, fell in the celebrated battle, which General Sinclair lost, in 1791, near Lake Erie, against the united Natives. During my residence at Marietta, General Sinclair was Governor of the State of the Ohio, which office he has held since the admission of that State to the Union. His Excellency, who had come from Pittsburgh and was going to Chillicothe, alighted at the tavern where I lodged. As he travelled in an old cabriolet and without any attendant, he did not at first strike my attention. In the United States, the men, who are called by the desire of their fellow citizens to discharge important functions, do not change their customs; they continue to reside in their own mansions, and to live in the same manner as private individuals, without exhibiting more ostentation, or incurring any additional expense. The emoluments attached to this office, vary in every State: South Carolina, one of the richest in the Union, gives its Governor 4,280 dollars; while the Governor of Kentucky receives only 12 or 1500. The inhabitants of the State of the Ohio differ in their opinion concerning the political conduct of General Sinclair. With regard to talents, he has the reputation of being a better lawyer than a soldier.

On the evening of my departure, I met at Marietta a Frenchman, who is settled on the banks of the Great Muskingum, 18 miles above that town. I much regretted, that I could not accept the invitation he gave me of paying him a visit at his own house; as it would have enabled me to extend my observations on this part of the western district.

On the 21st of July we left Marietta for Gallipoli, which is one hundred miles distant; whither we arrived after four days' navigation. The inhabitants of the country, by letting themselves drift during the night, complete this passage in three days, and even in two and a half. From the calculation we made, the mere motion of the stream was a mile and a half in an hour: in those places where the water is very deep, it is scarcely perceptible; but as one approaches the

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islands, which, as I have already mentioned, are very numerous the bed of the river becomes more shallow, so that there is often not a foot of water out of the channel. When we advance towards these shallows, the rapidity of the current becomes extreme, the canoe is carried along with the velocity of an arrow, and it is only in proportion as we recede from the islands that the bed increases in depth, and the current is less rapid.

On the day of our departure, we joined, towards evening, a Kentucky boat, bound for Cincinnati. This boat was 40 feet in length by 15 in breadth, and was laden with bar-iron and brass kettles. There was also on board a family of emigrants, consisting of the father, mother, and seven children, who carried with them all their furniture and implements of agriculture The conductors, three in number, permitted us without difficulty, to lash our canoe to their boat, and to pass the night with them. By this expedient we proposed to expedite our journey, by not stopping during the night, as we had hitherto done every evening; and we hoped to spend the night in a more tranquil manner than the preceding, during which we had been cruelly tormented with fleas, with which most of the houses were filled, where we had lodged since the moment of our embarking. But our hope was frustrated; for, so far were we from being more fortunate, that we were more than ever incommoded by them. In the course of my voyage, I have experienced this unpleasant circumstance only on the banks of the Ohio.

We were preparing to part about two o'clock in the morning, when the boat ran aground. In this situation we could not desert our hosts, who had entertained us with their best, and who had even made us partake, with much cordiality, of a wild turkey, which they had killed in the evening on the banks of the river. We went into the water with our conductors; and, by means of some large poles, which served us as levers, we at length succeeded in setting the boat afloat, after two hours laborious efforts.

During this night, we passed the mouth of the Little Kenhaway, which, after watering this part of Virginia, falls into the Ohio, on its left bank. The shores of the Little Kenhaway are inhabited only from 15 to 18 miles from its mouth; the remainder of the country is so mountainous, that settlements will not for a long time be formed there. Five miles before we reached the mouth of this small river, and on the right bank of the Ohio, is situated Belle-pré, where there are at present reckoned only twelve houses: but the settlements established in its vicinity are rapidly increasing. This information was

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given us in a house, where we halted after we had left the conductors of the Kentucky-boat above-mentioned.

On the 23d of July at 10 o'clock in the morning, we discovered Point Pleasant; which is situated a little above the mouth of the Great Kenhaway, at the extremity of a point formed by the left bank of that river, which projects nearly in a straight line into the middle of the Ohio. This spot is the more agreeable, as, four miles before we arrive there, the Ohio, which is about 400 fathoms broad, retains that breadth throughout its course, and runs in a perfectly straight direction. Its sloping banks, which rise from twenty-five to forty feet in height, are covered, as in the remainder of its course, with willows, fifteen or eighteen feet high; and the pendant branches and foliage of which, being of a fine green colour, form an agreeable contrast with that of the sugar and red-maples, and of the oaks which stand immediately above. These, in their turn, are overtopped by the plane-trees, tulip-trees, beeches, and the magnolia, of still more elevated growth, whose large and thick branches, in consequence of their greater expansion, spread over the banks, entirely covering the trees beneath them, and also extending much farther over the river. This arrangement of nature, which prevails on each bank, presents on every side a regular arch; the image of which, being reflected by the crystal waters, greatly adorns this magnificent prospect.

The Ohio, at Marietta, presents a landscape nearly similar; —perhaps even more picturesque, from the appearance of the houses of that small town, which may be seen at the distance of five or six miles; and which, as you ascend, seems to stand in the middle of the river.

The Great Kenhaway, which is better known in this country by the present name, than under that of New River, given to it in some maps, takes its rise at the foot of the Yellow Mountain in Tennessee; but the body of its waters is supplied from part of the Allegany mountains The *falls* and *rapids*, which occur very frequently in this river, through a course of more than four hundred miles, will for a long time impede the exportation, by means of the Ohio and Mississippi, of the commodities of that part of Virginia which it waters. Its banks are inhabited, but not to so great an extent as those of the Ohio.

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CHAP. XI.

GALLIPOLI.—STATE OF THE FRENCH COLONY OF SCIOTO.—ALEXANDRIA, AT THE MOUTH OF THE GREAT SCIOTO.—ARRIVAL AT LIMESTONE, IN KENTUCKY.

FOUR miles below Point Pleasant on the right bank of the Ohio is situated Gallipoli, a spot, at which have assembled nearly one fourth of the French, who in 1789 and 1790 left their country to form a colony on the Scioto; but they were not able to take possession of the lands which they had so dearly purchased, till they had remained fifteen months at Alexandria, in Virginia, during the war which then prevailed with the Natives. They had even nearly been deprived of this territory from the disputes which arose between the Company of the Scioto and that of the Ohio, of whom the former had in the first instance bought the land; but scarcely had they arrived on the soil which belonged to them, before war was renewed between the Americans and the Indians, and completed the ruin of these unfortunate colonists. There is no doubt, that, from their desolate state in the midst of the forests, they would all have been massacred, notwithstanding the kind of predilection which the Indian nations in the vicinity of Canada and Louisiana have for the French: hence, as long as they took no active part in this war, they were not disturbed; but the American army having obtained a decisive advantage near the mouth of the Great Kenhaway, and crossed the Ohio, the inhabitants of Gallipoli joined them. From this time they no longer received mercy, and could not leave the boundaries of their village: for two of them, who had gone to only twice the distance of a musket-shot from their residence, were seized by the Natives, when one was killed and scalped, and the other made prisoner, and carried into the interior of the country. At the time of my arrival at Gallipoli, they had just received some account from this man, which stated, that he gained a comfortable subsistence by mending guns and practising his trade of a goldsmith in the village where he resided: so that he expressed no wish of returning to his countrymen.

The war being at an end, Congress, in order to indemnify these unfortunate Frenchmen for the successive losses they had sustained, gave them twenty thousand acres of land, situated between the small rivers Sandy and Scioto, seventy-five miles below Gallipoli: this portion of territory was divided at the rate

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of two hundred and ten acres for each head of a family. Those individuals who did not possess sufficient courage to proceed a second time with no other aid than that of their children into the midst of the wood, for the purpose of felling, burning, and rooting out trees, which are often more than four feet in diameter, sold their portions either to the Americans or to more enterprising Frenchmen; so that only thirty families established themselves in these new possessions. In the course of three or four years, they succeeded by incessant labour in forming decent establishments, where, in consequence of the extreme fertility of the soil, they now have abundance of articles of the first necessity.

Gallipoli, which is built on the banks of the Ohio, contains about seventy log-houses, more than half of which are uninhabited and fallen to ruin, the others are still occupied by French families, who live in a miserable manner, as only two of them appear to be in easy circumstances: one keeps an inn, and distils brandy from peaches, which he sends to Kentucky, where it is sold to much advantage: and the other was M. Burau from Paris, who gave me a kind reception, though I was unknown to him. Nothing can exceed the activity of this Frenchman, who is obliged from the nature of his profession, to travel continually on the banks of the Ohio, and to make once or twice every year a journey of four or five hundred miles through the woods to the towns which lie beyond the Allegany mountains. I learned from him, that intermittent fevers which formerly were very calamitous to the inhabitants of Gallipoli, had not appeared during the last three years; but about a dozen of the inhabitants, who had removed to New Orleans, with a view of bettering their condition, had nearly all died the first year of their arrival.

On the 25th July, we left Gallipoli for Alexandria, which is 104 miles farther, and which we reached in three days and a half. This town is built at the mouth of the Great Scioto, and in an angle formed by the right bank of that river with the north-west shore of the Ohio. Though the plan of Alexandria had been drawn up for several years, yet no person could be induced to reside on that spot; and at present the number of houses is not more than twenty, while most of these are built of logs. Its position, however, is very favourable with respect to the numerous establishments that have been formed beyond this new town on the great Scioto, the banks of which are lower, more dry, and, it is said, nearly as fertile as those of the Ohio. The population might be greater, if the inhabitants were not every autumn liable to intermittent fevers, which are extremely severe, and do not leave them until the approach of winter.

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This country is more unhealthy than any in the vast State of the Ohio. The seat of Government at this new State is at Chillicoth, a town containing about one hundred and fifty houses, and situated sixty miles from the mouth of the great Scioto. A newspaper is published in this town once a week.

At Alexandria and in the other small towns of the Western Countries, which stand in a very rich soil, the space between each house is entirely covered with *Stramonium*. This dangerous, and bad-smelling plant thrives in a surprising degree in every spot, where the soil has been cultivated for twelve or fifteen years; and notwithstanding all the exertions of the inhabitants, it seems to increase in quantity every year. It is supposed to have first appeared at James-Town, in Virginia, whence it derives its name of *James-Weed*. Travellers use its leaves for covering the wounds on the backs of their horses, that arise from the friction of the saddle.

The petty mullein is the next European plant which I found in great abundance, though in less quantities than the *Stramonium*. It is very common on the road leading from Philadelphia to Lancaster, but less so beyond that town, and I never found it on the other side of the Allegany mountains.

On the first of April we arrived at Limestone, in Kentucky, fifty miles beyond Alexandria, and here my journey along the Ohio was at an end. We had travelled three hundred and forty-eight miles in a canoe from Wheeling, and were ten days on the passage, during which we were obliged to paddle incessantly, on account of the slowness of the current. This labour, so painful to those who are not accustomed to it, was to us still more irksome on account of the excessive heat: we also suffered much from thirst, not being able to drink without landing at the inns on the banks of the river; for during summer the water of the Ohio acquires such a degree of heat, that it is not drinkable till it has been kept in the shade for twenty-four hours. This extraordinary warmth of the water arises on one hand from the extreme heat of the climate at this season, and on the other from the slowness of the current.

I had fixed on the first of October for my return to Charleston, and had nearly a thousand miles to travel by land, before I could reach it, as I intended to pass through the State of Tennessee, which would make a great addition to my journey. Being pressed for time, I therefore abandoned the project I had formed of going down the Ohio as far as the falls, and left Mr. Samuel Craft, who continued his voyage alone in a canoe to Louisville, whence, after descending the Ohio and Mississippi, he intended to go up the river of the Yazous to Natches, and afterwards to return by land to the State of Vermont, where he expected to

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be about the fifteenth of November following, after having performed in six months a journey of nearly four thousand miles.

CHAP. XII.

OF THE FISH AND SHELLS OF THE OHIO.—INHABITANTS OF THE BANKS OF THAT RIVER.—AGRICULTURE AND AMERICAN EMIGRATION.—COMMERCIAL INTERCOURSE OF THIS PART OF THE UNITED STATES.

THE shores of the Ohio, though from twenty to sixty feet in height, scarcely contain any stony substances after leaving Pittsburgh; and with the exception of large detached blocks of a grey colour and friable texture, which may be observed from ten to twelve miles below Wheeling, the rest appears to be only a simple vegetable earth. It is but a few miles before reaching Limestone, that you observe a bank of calcareous stone, the great thickness of which clearly shews, that it is of a considerable extent.

Two kinds of flints, round and of a middling size, are very abundant in the bed of the Ohio, particularly near the islands, where they have been accumulated by the force of the current; some are of a deep colour and split easily; others, smaller and less numerous, are of a white quartz, but rather opaque.

In the Ohio, as well as in the Allegany, the Monongahela and other rivers in the West Country, there is an abundance of mullet from two to five inches long; they are not eaten, but the mother of pearl, which they afford, being very thick, is made into sleeve-buttons. I saw some of these at Lexington, which were as fine as those made from the same substance in Europe. The new species which I have mentioned has been defined by M. Bose, *Unio Ohiotensis*.

The Ohio abounds in fish of different sorts, but the most common is the *Cat-fish* or *Silurus Felis*: they are taken by the line, though some often weigh a hundred pounds. The first fold of the upper fin of this fish is a pointed substance, very strong and sharp, and which it employs for killing others of a less size: its mode of attack is by swimming some inches below its object, and then, by rising suddenly, it pierces it several times in the belly, a circumstance which we twice had occasion to observe during our navigation.

In the years 1796 and 1797, the banks of the Ohio were so thinly inhabited, that there were scarcely thirty families in the space of four hundred miles, but since that time emigrants from the mountainous countries of Pennsylvania and Virginia, have arrived in great numbers in these fertile districts, and the habi-

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tations have so much encreased, that they are now not more than from one to three miles distant, whilst some of them may even be perceived from the middle of the river.

The inhabitants in these quarters, chiefly employ their time in hunting the stag or the bear, the skins of which they sell; but their propensity for this kind of life prevents them from cultivating the land, so that their new possessions are not in a state of improvement: each family has from one to four hundred acres of land, though not more than eight or ten are cultivated: nevertheless, the produce derived from this small portion, together with the milk of their cows, is more than sufficient for the subsistence of the family, which is always numerous, for scarcely any man has less than six or seven children. Their houses are built on the banks of the river, and almost always in beautiful situations; but the way in which they are constructed, bears no analogy to the charming spots on which they stand, as they are nothing but miserable log-houses without windows, and so small, that two beds take up almost their whole internal space. Two men can with ease build one of these houses in less than three days, while their wretched appearance would seem to indicate an uncommon scarcity of wood, though in countries covered with forests. The inhabitants on the banks of the Ohio receive without hesitation any travellers who demand their hospitality, and afford them shelter, that is, they permit them to sleep upon the floor in their own clothes. In these houses may be procured maize-bread, smoked bacon, milk and butter, but seldom any thing more: thus the expence for food is here as well as in all the Western Countries only a trivial consideration.

Maize is almost the only grain to the culture of which they devote themselves, and though they are still far from perfection as agriculturists; yet the soil, notwithstanding it is full of roots, is so fertile, that the stalks of this grain grow to the height of eleven or twelve feet, while the produce per acre is annually from twenty-five to thirty quintals or hundred weight. During the first three years of cultivation, the corn grows too strongly, and sheds its grain before the ears are ripe, in consequence of which the land is seldom sown till after it has lain fallow for four or five years, and been deprived during that time of its numerous roots and suckers. The Americans of the interior parts, cultivate wheat from motives of speculation rather than for their own consumption, as they send the flour to the sea-ports; for nine-tenths of the inhabitants eat no other bread but that of maize, of which they make loaves that weigh eight or ten pounds, and bake them in portable ovens; or they form small cakes of this flour, which they cook upon a small board before the fire. This bread is generally eaten hot,

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and is not very palatable to those who are unaccustomed to its use.

The only fruit-tree at present cultivated in this country is that of the peach, which, though no attention whatever is paid to it, grows so vigorously, that it bears fruit in the third year.

The price of the best lands on the banks of the Ohio, does not exceed three dollars per acre, and on the left bank in the States of Kentucky and Virginia, they are even cheaper. The two banks of the Ohio not having been inhabited more than eight or nine years, which is the case with those of the smaller rivers, that empty themselves into it, the Americans, who have come to reside there, have but a small participation in the trade by the Mississippi, which consists of hams, smoked bacon, brandy distilled from corn and peaches, barrelled beer, hemp, skins, and some kinds of flour; they also send cattle to the Atlantic States. Some itinerant merchants who procure commodities at Pittsburgh and Wheeling, and who go up and down the river in canoes, bring them mercery goods, and particularly tea and coffee, for which they take their produce in exchange. More than one half of those who inhabit the banks of the Ohio, were the earliest inhabitants, or, as they are called in the United States, the first settlers: they are a wandering horde of people, who are never satisfied with the soil which they have once cultivated, but, under pretext of finding better land, a more healthful climate or more abundant chace, are always going farther, and establishing themselves in the vicinity of the savage nations, whom they brave even in their own country. The bad faith which they exhibit towards them gives rise to continual quarrels, and often produces sanguinary wars.

Before arriving at Marietta, we met with one of these settlers, who resided in the environs of Wheeling, and who being likewise on his way down the Ohio, we travelled with him for ten days. He was alone in a canoe about eighteen or twenty feet long, by twelve or fifteen inches wide, and was going to visit the banks of the Missouri, which are inhabited by Americans, about a hundred and fifty miles from its mouth. The excellent quality of the land, which is reckoned more fertile than that on the Ohio, and which the Spanish Government then caused to be distributed gratis, together with the multitude of beavers, elks, and particularly of bisons, were the motives that induced him to emigrate to those distant countries, whence, after finding a convenient spot for his residence, he intended to return to the Ohio to fetch his family, and by which his voyage would amount to fourteen or fifteen hundred miles. His costume, like that of all the American hunters, consisted of a round jacket with sleeves, a pair of pantaloons, and a large woollen belt of a red

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or yellow colour: his hunting-implements were a carbine, a tomahawk or small hatchet, which the Indians use for cutting wood, or killing their enemies, two snares for beavers, and a large dirk hanging from his belt; a cloak or coverlet was all his baggage. Every evening he landed on the banks of the river, where he made a fire, and passed the night; and when he thought the place favourable for hunting, he went into the woods for several days together: the produce of the chace afforded him the means of subsistence, and by the sale of the skins he procured supplies of ammunition. Such were the first inhabitants of Kentucky and Tennessee, of which only a few now remain. It was they who began to cultivate these fertile regions, after taking them from the Savages, who disputed their possession of them with the most sanguinary violence for a period of five or six years; but their long familiarity with a wandering and idle life, prevented the new comers from enjoying the fruit of their labours in profiting by the extraordinary price, which those lands soon attained; they emigrated into countries still more distant, where they formed new establishments. The same conduct will, probably, be pursued by those who now reside on the banks of the Ohio; for, the same propensity which led them thither, will cause them to emigrate still farther. These will be succeeded by new emigrants from the Atlantic States, who will also abandon their lands to go in search of a milder temperature and a more fertile soil. The last comers, instead of log-houses with which the present inhabitants are contented, will probably build their residences of planks, cultivate a greater quantity of land, and by perseverance render their new possessions more valuable by raising maize, wheat, tobacco, and hemp; the peaceable enjoyment of their property will be secured by their numerous population; they will rear abundance of cattle in their rich and delightful meadows, while an advantageous sale for the products of the country, will always arise from their conveyance by the Ohio.

The situation of this river being the best of any in the United States, must cause it to be considered as the centre of commerce between the United and the Western States, as it is by its means, that the latter receive the manufactured articles with which Europe, India, and the Antilles, supply the former; while it is the only medium of communication that is opened to the ocean, for exporting the goods afforded by the vast and fertile part of the United States comprised between the Allegany mountains, the lakes and the left bank of the Mississippi.

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CHAP. XIII.

LIMESTONE.—ROAD FROM LIMESTONE TO LEXINGTON.—WASHINGTON.—SALT-PITS OF MAYS-LICK.—MILLESBURGH.—PARIS.

LIMESTONE, which is built on the left bank of the Ohio, contains only between thirty and forty houses constructed of planks. This little town, which was begun rather more than fifteen years ago, might apparently have acquired a greater extent, as it was for a long time the spot, at which all the emigrants stopped when travelling from the Northern States by way of Pittsburgh, and it is still the staple of all the merchandize sent to Kentucky from Philadelphia and Baltimore.

Travellers who arrive at Limestone by water find it difficult to hire horses to continue their journey, as there are scarcely any but what are for sale; and I believe the inhabitants, as well as those of Shippensburgh know how to turn this circumstance to their advantage. As I intended to stay some time at Lexington, and afterwards to pursue a more agreeable route, I determined to travel on foot, and left my portmanteau with the master of the inn at which I put up, who undertook for a dollar, to procure me conveyance to Lexington, for which place I set off on the same day. The distance from Limestone to Lexington is sixty-five miles, which I travelled in two days and a half. The first town on the way is Washington, at a distance of four miles; it is much larger than Limestone, as it contains about two hundred houses all built of planks and on both sides of the road. Trade is here very active, and consists principally of meal, which is exported to New Orleans. There are in the environs some very fine houses, which have well cultivated lands attached to them, and which are as well inclosed as those in Virginia and Pennsylvania. I proceeded seven miles the first evening, and the next day arrived at Springfield, consisting only of five or six houses, but amongst which are two spacious and well-built taverns, where the inhabitants of the environs assemble. I went hence through Mays-Lick, where there is a salt pit, and at which I stopped to examine the process employed in these parts for the extraction of salt. The wells which afford the saline water are about twenty feet deep, and are only from fifty to sixty fathoms distant from the river Salt Lick, the water of which is brackish in summer. They use brass cauldrons for the evaporation, which contain about twenty-

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five gallons, and which are similar in their form to those used in France for making ley: they place ten or twelve of these in a row, over a trench four feet deep, and of a width proportionate to their diameter, so that their sides rest on the banks of the trench, while the spaces between the cauldrons are imperfectly stopped by a few handfuls of clay. The fuel which is cut in billets about three feet in length, is thrown in at one of the extremities of the trench. These sort of furnaces have no claim to economy, as they consume a prodigious quantity of wood: I made this remark to the people who were employed in the process; but they answered that they did not know of any better process; and must continue to follow it till some people from the *old country* (meaning the Europeans) arrived to teach them better. The dearness of manual labour, in the cutting and conveyance of wood, and the few saline particles which the water holds in solution, are circumstances that cause the salt to be always at a high price, as it sold at about four dollars the quintal. This, however, induces many persons to search for saline springs, which are generally found in the parts denominated *Licks*, and whither the bisons, elks, and stags, which were in Kentucky before the arrival of the Europeans, used to go in hundreds to lick the saline particles with which the soil is impregnated. There are in this State as well as in that of Tennessee, a number of quacks, who by means of a wand of hazel nut-tree pretend to be able to discover saline and fresh springs; but they are only consulted by the least enlightened part of the inhabitants, and even these do not demand their assistance, till some circumstances have induced them to dig in a spot of ground where they suppose one of these springs to run.

The country over which you pass, ten miles before arriving at Mays-Lick, and eight miles beyond it, contains no habitation. The soil is dry and barren; and the road is covered with large flat calcareous stones, which are of a blue colour inside, and the edges of which are round. The only trees observable, are the white oak, *(Quercus alba)* and walnut *(Juglans hickery)*, the stunted size and bad appearance of which sufficiently indicate the sterility of the soil, which is, doubtless, caused by the salt-mines it contains.

From Mays-Lick, I proceeded to Millesburgh, which contains about fifty houses, and whither I went to visit M. Savary, who was particularly intimate with my father; he is one of the greatest landed-proprietors in these countries, as he possesses upwards of eighty thousand acres, as well in Virginia as in Kentucky and Tennessee. The taxes he pays, though trivial in themselves, are burdensome to him, as he finds it difficult at present to sell any portion of his property, because the emigration from the

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Eastern States having taken another direction, people seldom come towards Kentucky.

Near Millesburgh runs a small river, about five or six fathoms wide; on which sawing-mills are established. The water was so low, at the time of my arrival, that I crossed it, on large calcareous stones, which partly form its bed, and which were then above the water. In winter, on the contrary, it rises to such a degree, that it can only be passed by a bridge, raised upwards of twenty-five feet. The bridges thrown over the small rivers and creeks that are frequently met with in the interior of the country, particularly in the Eastern States, all consist of the trunks of trees, not bound together, but placed across by the side of each other: these bridges are not supported, and when travelling on horseback, it is always prudent to descend, and walk over. Before arriving at Lexington, I passed through Paris, the chief place in the county of Bourbon. This small town, which, in 1796, contained only eighteen houses, now has upwards of 150, nearly the half of which are of brick: it stands in the middle of an agreeable and extensive plain, and is watered by a small river, on which are several corn-mills. Every thing here announces the competency of the inhabitants; seven or eight of them were drinking whiskey at a very good inn, at which we stopped, to avoid the excessive heat. After answering a number of questions, respecting the object of my journey, one of them engaged me to dine with him, for the express purpose of introducing me to a countryman, who had lately arrived from Bengal. I yielded to his solicitations, and met with a Frenchman, who had left Calcutta for the purpose of settling in Kentucky: he had taken up his residence at Paris, and followed the profession of a schoolmaster.

CHAP. XIV.

LEXINGTON.—ITS MANUFACTURES, COMMERCE, &c.

LEXINGTON, the chief place of the county of La Fayette, is situated in the middle of a *cleared spot*, containing about three hundred acres, surrounded with wood, like all the other small towns of the United States, which are not in the vicinity of the sea. This town is built upon a regular plan; and its streets, which are sufficiently large, intersect each other at right angles. The want of pavements renders them very dirty in winter, or at any time when it rains. The houses, most of which are of brick, are dispersed over a space of from eighty to one hundred acres, with the exception of those that form the *main street*, where they are contiguous to each other. This town was

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founded in 1780, and is the oldest, as well as the largest, of the three New Western States; it contains about three thousand inhabitants. Frankfort, the seat of the government of Kentucky, which is twenty-four miles distant, is not so populous; a circumstance that may be attributed to the rapid increase of Lexington, in consequence of its position in the centre of one of the most fertile parts of the country, comprised in a kind of semi-circle, which is here formed by the Kentucky river.

There are at Lexington two printing-houses, in each of which a newspaper is published twice a week. Part of the paper is made in the country, and is about one-third dearer than in France: that used for writing is imported from England, and comes by Philadelphia and Baltimore. Two fine rope-walks, which are always employed, supply rigging for the vessels that are built on the Ohio. On the banks of the small river that runs near the town, are several tan-yards, the produce of which is sufficient for the inhabitants. At the door of one of these establishments, I observed some very strong hides, of a yellow colour, which had been tanned with the bark of the Quercitron Oak; by which I ascertained that this tree grows in Kentucky, though I did not meet with it between Limestone and Lexington, owing, probably, to the sterility of the soil.

The want of hands in this country is a stimulus to the industry of the inhabitants. While I was at Lexington, one of them obtained a patent for a new machine for making nails, which was more complete than that employed in the prisons of New York and Philadelphia; and another had specified one for pounding and cleaning hemp, and sawing wood and stone. This machine, which is moved by a horse, or a current of water, he declared to be capable of bruising and cleaning eight thousand pound of hemp per day.

The manufactories of Lexington are well supported; and their owners are even supposed to be in good circumstances, notwithstanding the extreme dearness of manual labour: this arises from the preference given by the inhabitants to agricultural pursuits, who, preferring the assistance of their children in their exertions, refuse to bind them to useful trades. The following comparison will more clearly shew the scarcity of artisans in the Western States. At Charleston, in Carolina, and at Savannah, in Georgia, white journeymen carpenters, joiners, masons, smiths, taylors, shoe-makers, &c. gain two dollars per day, and can live for less than six per week. At New York and Philadelphia a man earns but one dollar, and his expences cost him four per week. At Marietta, Lexington, and Nashville, in Tennessee, the same artisans gain from a dollar to one and a half per day: while the produce of one day's labour is sufficient for a week's

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subsistence. Another example will tend to shew the low price of articles of the first necessity in the Western States. While I was at Lexington, the sum I paid for my board was reckoned as high as any in the town, and I was abundantly supplied for two dollars a week. It is said, that a man may live equally cheap in the State of New England, which comprises Connecticut, Massachusets, and New Hampshire; but the price of manual labour is not so high in those parts, and is therefore more upon an equality, than that of provisions.

Independently of the manufactories established at Lexington, there are also in the country several establishments for common earthenware; and one or two powder mills, the produce of which, except a small quantity that is exported to Upper Carolina and Lower Louisiana, is consumed in the vicinity. The sulphur is received from Philadelphia; and the salt-petre is made in the country: the soils which afford the lixivia being taken from the grottos or caverns in the declivities of the high hills that are found in the most mountainous parts of this State. The land here is extremely rich in nitrous particles, which is evidently owing to the calcareous rock in which all these excavations are formed, as well as to the vegetable substances, which have been accidentally propelled within them,—a circumstance which seems to shew, that the assimilation of animal substances is not absolutely necessary, even in the formation of artificial nitre-beds, in order to produce a higher degree of nitrification. Salt-petre of the first evaporation is sold for the eighth of a dollar per pound; but in various specimens which I saw, I could not observe any indication of sea-salt. The processes followed in these works are as defective as those in the manufacture of salt; but I here speak only of what relates to the extraction of salt-petre, not having seen the powder-mills. I shall conclude with observing, that of all the Atlantic States, it is only in Kentucky and Tennessee that salt-petre is made.

The merchants of Lexington nearly monopolize the commerce of Kentucky. They receive their merchandize from Philadelphia and Baltimore, in thirty-five or forty days; the total charge for conveyance is from seven to eight dollars per quintal. Seven tenths of the manufactured articles consumed in Kentucky, as well as in the rest of the United States, are imported from England; and principally consist of coarse and fine hardware, cutlery, nails, tin-ware, drapery, mercery, drugs, and china. Muslins, nankeens, tea, &c. are imported directly from India, by American ships; and they derive from the Antilles, coffee and sugar, of different qualities; for it is only the lower class of inhabitants who use that produced by the maple.

The French merchandizes that are received in these coun-

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tries, consist merely of taffetas, silk stockings, brandies, and mill-stones, which last are conveyed into the country, notwithstanding their considerable weight and the distance of their passage.

From Lexington the various merchandizes pass to the interior of the State, and what remains is sent by land to Tennessee. The merchants can easily make a considerable profit; for on the one hand they generally receive a year's credit from the commercial houses of Philadelphia and Baltimore, and on the other, as they are not very numerous, they can fix in their own favour the course of exchange for the territorial productions, which they barter for merchandize, more particularly, because, from the extreme scarcity of cash, most of their transactions are by way of exchange. The merchants, however, adopt every method for gaining all the money in circulation, and there are some cases, in which they will not sell certain kinds of merchandize except for specie, or for such productions as have an inevitable sale; amongst which may be reckoned hemp and home-spun linen. The payments in produce consequently always bear a difference of fifteen or twenty per cent. in favour of the merchants: all the cash collected by commerce is sent by land on horseback to Philadelphia; and I have seen convoys of from fifteen to twenty horses laden with money, though the distance from Lexington to Philadelphia by the Pennsylvanian road is about 650 miles. The difficulty of conveyance causes the bank-notes of the United States to be circulated to some extent, but the country people refuse to receive them, lest they should take such as are forged.

During my residence at Lexington, I frequently saw Dr. S. Brown, a physician from Virginia, who has obtained considerable reputation in these districts, as well as several Frenchmen, who are settled here, and to whom I had letters of introduction.

CHAP. XII.

JOURNEY FROM LEXINGTON.—CULTIVATION OF THE VINE AT KENTUCKY.—PASSAGE OF THE RIVERS KENTUCKY AND DICK.—DEPARTURE FOR NASHVILLE.—MULDER-HILL.—PASSAGE OF GREEN RIVER.

ON the 10th of August, I left Lexington for Nashville in the State of Tennessee; and as the establishment for naturalising the vine in Kentucky was only a few miles out of my road, I was induced to proceed thither. There is no American who does not take a lively interest in all attempts of this kind, and several individuals in the Atlantic States have spoken largely to me of the success, which has attended their exertions. As French

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wines form one of the principal articles of trade with America, I wished to ascertain as much as possible the degree of prosperity, to which this establishment had attained, though from the indifferent manner in which I had heard the country described, I was previously convinced, that the first attempts had not been very successful.

About fourteen miles from Lexington, I left the road to Hickman Ferry, and turning to the left, lost myself amongst the woods, so that I did not reach the vineyard till evening, when I was well received by M. Dufour, its manager, who invited me to pass the night and the following day with him, which I accepted.

There prevails in the United States a degree of public spirit, which induces individuals to adopt any project that may tend to enrich the country by agriculture and commerce. That of naturalising the vine at Kentucky was readily embraced, and several individuals formed a society for carrying it into execution: they agreed to deposit a capital of 10,000 dollars, which was divided into 200 shares of 50 dollars each. The stock being soon filled, and Dufour, the head of a small Swiss colony who had established themselves at Kentucky, for seven or eight years, and who had projected the enterprise, was engaged to find a proper soil to procure vine plants, and to make every necessary arrangement for ensuring success to the enterprise. The spot which he selected and cleared is situated on the river Kentucky, twenty miles from Lexington: the soil is excellent, and the vine is planted on a very steep hillock, having a southern aspect, while its base is 200 fathoms from the river.

M. Dufour had formed an idea of going to France for the purpose of procuring vine-plants, and with this view he went to New York; but either the war or some other circumstance prevented him from sailing, and he merely collected in that town and Philadelphia a number of roots of every species he could find in the gardens of individuals. He thus made a collection of 25 different kinds, which he conveyed to Kentucky and planted: but his exertions were unsuccessful, as he could only raise four or five varieties, amongst which were two, that he called Burgundy and Madeira; while the former of these does not flourish, as the grape always decays before it arrives at maturity. When I saw them, the bunches were scarce and meagre, the grain small, and every thing seemed to shew that the vintage of this year would not be greater than those which preceded it. The stocks of Madeira on the contrary afforded some hopes; for of nearly 200, one third was loaded with very fine bunches. These vines do not occupy more than six acres of land, and they are planted and fixed with props the same as

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in the environs of Paris. The vicinity of the woods, however, gives rise to the depredations of a species of bird, which from the nature of the country it is difficult to avoid.

During my stay with M. Dufour, I asked him in what part of Kentucky the numerous emigrants from our country in 1793 and 1794, had taken up their residence; he said, that though a great number of Swiss had formed the project of coming hither, they had at the time of their journey changed their minds, and that the whole colony consisted merely of his family and a few friends, not exceeding eleven persons altogether.

On the second day after my arrival I left the vineyard, and, to save ground, M. Dufour offered to conduct me through the woods to Hickman Ferry, where a passage is made over the river Kentucky. I accepted his proposition; and though the distance was only four miles, we were travelling four hours, as we were frequently obliged to alight to climb or descend very steep hills. The low grounds near the river are covered with nothing but fine plane-trees; and it is worthy of remark, that the inhabitants are averse from living in their vicinity, because they believe that the down with which the bottom of the leaves is covered in spring and which falls off in the summer, is a pre-disposing cause of consumption, by producing an insensible but continued irritation of the lungs. At this season the water of the Kentucky is so low at Hickman-Ferry, that the river may be forded.

I stopped a few minutes at the inn, where the boat is kept for passing at high water; and while they were feeding my horse, I went down to the river side to make my remarks. The banks consist of an enormous mass of perpendicular calcareous stone, about 150 feet in height, and which from top to bottom bear evident marks of the action of the water. A large and long street, the houses of which stand in a right line, will afford a good idea of the channel of this small river at Hickman-Ferry: it swells prodigiously in spring and autumn, at which seasons its water rises in a few days from 60 to 70 feet.

At this inn I met with an inhabitant, who resided sixty miles farther: this man, with whom I entered into conversation, and who appeared to me to be in easy circumstances, pressed me hard to pass a week with his family; and as he supposed, that I was in search of land on which I might form an establishment, this being the object of most persons who visit Kentucky, he offered to point out such as would suit me, from the desire, as he expressed himself, of having for a neighbour an inhabitant of the old country. In this State, however, as well as in Tennessee, I was often obliged to refuse similar propositions from unknown individuals, whom I met with in the taverns, or from

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whom I demanded a lodging, and who always invited me to pass some days amongst them.

About a mile from Kentucky I left the road to Danville, and took that which leads to Harrod's-Burgh, in order to visit General Adair; and after crossing Dick's river, whose banks are covered with Virginian cedars as well as with the black oak and hickery walnut-tree, I reached his estate. The General was absent when I arrived, but his lady received me in the most obliging manner, and during five or six days I remained with her, and was shewn every mark of attention and kindness.

A large and convenient mansion, a great number of black domestics and several carriages announced the opulence of the General, who, as is well known, is not always in America: his house is situated near Harrod's-Burgh, in Mercer county, and is surrounded by vast fields of maize and magnificent orchards of peach-trees. The soil is uncommonly fertile, as is evident from the thickness of the stalks, their extraordinary height and the abundance of their produce which annually amounts to thirty-five or forty quintals of grain per acre. The great mass of the neighbouring forests is composed of the same species of trees that grow in the most fertile districts, such as the *Gleitschia, three species of Acanthos, Guilandina divica, Ulmus viscosa, Morus rubra, Corylus,* and *Annona triloba;* while the surface of the soil in a circumference of several miles is perfectly flat, a circumstance very unusual in this country.

As I was obliged to continue my journey without delay, I did not accept the invitation of Mrs. Adair, who pressed me to stay till her husband returned, and I accordingly set off on the 20th of August for Nashville. The first day I travelled twenty-four miles and slept at the house of one Hayes, who keeps a good inn fifty miles from Lexington. The second day I made twenty-five miles and stopt at Skegg's inn, ten miles before you reach Mulder-Hill, a high and steep elevation in the form of an amphitheatre. I ascended it on foot; and from its summit the country that I had passed, appeared like an immense valley covered with forests, and the limits of which were on the right and left farther than the eye could reach; while the tops of the trees, which seemed to touch each other, resembled a field of sombre verdure, in which no habitation was perceptible. The profound tranquillity which prevails in these woods, the absence of every dangerous animal, and the security which the inhabitants enjoy, are circumstances that are seldom to be met with in other countries.

The inn kept by Skeggs, at which I stopped after quitting Mulder-Hill, was the worst house I had met with between Limestone and Nashville: it contained no kind of provision, and

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I was obliged to sleep on the floor in my great coat, without being able to obtain any thing for supper. As there was no stable at this inn, I was obliged to put my horse in an orchard of peaches, which served him for food; the enclosures of this orchard were demolished, and for fear he should escape in the night, I fixed a bell on his neck, an article with which travellers, who pass through the woods, are obliged to provide themselves for a similar purpose. The peach-trees were in a state of maturity, and I perceived that my horse had been eating all night, and had consumed a great quantity of fruit from three or four trees, the branches of which were bent by their weight to the ground.

Eight miles from Skeggs's, I forded Green River, which empties itself into the Ohio, after some long sinuosities, and runs across a narrow valley. At the part where I passed, there were scarcely three feet water in a breadth of from fifteen to twenty fathoms; but in the spring, the only period at which it is navigable, the water rises to eighteen feet. On quitting the river, I again met with the road which winds for two miles through that part of the valley that lies on the right bank. The soil of these low grounds is a muddy earth extremely fertile, in which grow, exclusively from all other species of trees, several beeches of a great height and a proportionate diameter, and which are deprived of their branches to the height of twenty-five feet from the ground. The soil occupied by these trees, is considered by the inhabitants as the most difficult to clear.

CHAP. XVI.

PASSAGE OF THE BARRENS.—APPEARANCE OF THE HOUSES ON THE ROADS WHICH CROSS THEM, WITH SOME ACCOUNTS OF THE PLANTS IN THEIR VICINITY. —ARRIVAL AT NASHVILLE.

ABOUT ten miles from Green River runs Little Barren, a small river from thirty to forty feet wide. The soil in its environs is dry and sterile, and only produces a few Virginian cedars, some double-leaved pines and black oaks. On leaving this place, the Barrens or meadows of Kentucky begin: on the first day I travelled thirteen miles across the meadows, and stopt at the house of one Williamson, near Bears-Wallow.

The next day, before I began my journey, I wished to give my horse some water, and my host informed me, that I should find a spring with which his family was supplied at about a quarter of a mile from the house. I, however, lost my way, and after a rapid ride of two hours, I discovered a house in a narrow

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and deep valley, where I learnt, that I had wandered a great distance from the road, and that I must necessarily return to the place from whence I set out. The mistress of the house informed me, that she had resided in these Barrens for three years, and that for eighteen months she had not seen a single person: that, tired with living in so insulated a manner, her husband had set off two months ago to seek for other lands near the mouth of the Ohio. Such was the pretext for the removal of this family, which would be the third they had made since they quitted the Back Settlements of Virginia. A girl fourteen years old and two children much younger, were the only society of this woman; and her house was abundantly supplied with maize and the produce of the dairy.

This part of the Barrens was exactly similar to that I had passed on the preceding day, and I found in a hole in the shape of a funnel, a spring, from which I was an hour drawing half a pail-full of water for my horse. The time thus employed, together with what I had lost, by going out of my way, as well as the great heat of the weather, obliged me to shorten my journey, and I passed the night at Dripping-Spring, about nine miles from Bears-Wallow. The next day, the 26th, I travelled twenty-eight miles, and stopped at the house of Jacob Kesley, of the sect of the Dunkers, whom I recognised by his long beard. Ten miles from Dripping-Spring, I forded Big-Barrens River, the banks of which are covered with wood for nearly three miles, while the bed appeared to be one third larger than Green-River. As I was about to cross in the ferry boat, a barge laden with salt arrived from St. Genevieve, a French village on the right bank of the Mississippi, a hundred miles above the mouth of the Ohio.

The house of my host was as badly furnished as those at which I had lately stopt, and I was obliged to sleep on the floor. Most of the inhabitants of this part of Kentucky have very lately settled here, and are only well supplied with maize and forage.

On the 27th of August early in the morning, I again pursued my journey, and at a distance of thirteen miles crossed the line that separates the State of Tennessee from that of Kentucky. There also the Barrens terminate, and to my great satisfaction I re-entered the woods; for nothing is more tedious than the dull uniformity of those immense meadows, where you meet with no living animal except abundance of partridges, *the Perdix Marilanda*.

The first house I found in Tennessee was that of a man called Cheeks, of whom I formed no great opinion from his conversation with seven or eight neighbours with whom he was drinking bumpers of whiskey. Fearing that I should be witness to some

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sanguinary transactions, which, amongst the inhabitants of these countries, are often the result of intoxication, I quitted his inn, and took up my lodging three miles farther, with an honest landlord, whose house was well supplied, and in which the son of the late Duke of Orleans had resided some years before. The following day, after journeying twenty-seven miles, I arrived at Nashville.

The Barrens, or meadows of Kentucky, comprise an extent of sixty or seventy miles in length, by fifty to sixty in width; and from the significaton of this word, I expected to cross a barren space, producing only some occasional plants. I was confirmed in my opinion by what the inhabitants said of these meadows, before I reached them; as they told me, I should probably perish with heat and thirst, and that I should not find a single shady spot throughout the whole distance; for most of the Americans, who live amongst the woods, cannot conceive that there are districts entirely open, and still less, that any persons can reside on them. Instead, however, of finding such a country as had been described to me, I was agreeably surprised to meet with a beautiful meadow, the abundant grass of which was from two to three feet high, and afforded excellent food for cattle: amongst it I saw a great variety of plants, but particularly the *Gerardia flava*, or gall of the earth, the *Gnaphalium dioicum*, or white plantain, and the *Rudbekia purparea*. I observed, that the roots of this last-mentioned plant possessed to a certain degree the acrid taste of the leaves of the *Spilanthus oleracea*. When I crossed these meadows, the time of blowing was over with three-fourths of the plants; but the period of maturity of most of the seeds and grasses had not yet arrived; I, however, collected and sent to France upwards of ninety species.

In some parts of these meadows I observed several species of wild climbing vines, but particularly that called by the inhabitants summer-grapes. The bunches were tolerably large; and the grapes of as good a quality as those that grow in the environs of Paris, with the exception, that they are not quite so compact.

It appears to me, that the attempts made at Kentucky for cultivating the vine would have been more successful on the Barrens, the soil of which seems more fit for this kind of cultivation than that of the banks of the Kentucky, which, though richer, is rendered too moist by the nature of the country, and the vicinity of the forests.

The Barrens are circumscribed by a skirting of wood, from two to three miles in breadth; the trees of which it is composed are *clear-planted*, that is thinly, and at a farther distance from each other, the nearer they are to the meadow. On the side of Tennes-

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see, this skirting is exclusively formed by post-oaks (*Quercus obtusiloba*), the wood of which being very hard and permanent, is preferable to any other kind for making enclosures. I also perceived here and there in the meadow some black oaks (*Quercus nigra*), and walnut-trees (*Juglans hickory*), about twelve or fifteen feet high, which composed some small bowers of wood, but which were always so distant from each other, as not in any degree to circumscribe the view. The surface of these meadows is in general very even; towards Dripping-Spring only, I observed a high and long hillock, containing a few trees, and interspersed with enormous pieces of rock.

It appears that the Barrens contain a great number of subterraneous caverns, some of which are very near the surface. A short time before I arrived, an ebullition had taken place on the road, near Bears Wallow, beneath the feet of a traveller, who only escaped by the merest chance. One may easily conceive the danger of such accidents, in a country where the houses are so distant from each other, and where perhaps a traveller is not seen once in a fortnight.

There may also be seen, in these meadows, a number of wide holes, in the shape of a funnel, and the breadth of which varies in proportion to their depth, from fifteen to thirty feet. In some of these holes, above five or six feet from the bottom, runs a small thread of water, which loses itself in a crevice at the base. These kind of springs are never dry, a circumstance which induces emigrants to reside wherever they are found; for, except the river Big-Barren, I did not observe in these plains the smallest rivulet or creek. I have heard, that some attempts have been made to dig wells, but I cannot pretend to say, what success attended them. From the above observations, however, it will be evident, that the want of water, and of wood, for enclosures, will for a long time prove an obstacle to the increase of the establishments in this part of Kentucky. The latter of these inconveniences might, however, be avoided, by changing the present manner of enclosing lands, for that of live hedges, in which the *Gleditschia triacanthos*, one of the most common trees in the country, might be employed with success. The Barrens are at present but thinly peopled in proportion to their extent; for, on the road where the houses are nearest together, there were but eighteen in the space of seventy miles.

Some inhabitants divide the lands of the Barrens into three classes, according to their quality, and, in their opinion, the middling class is the largest. In that which I crossed, the soil was yellowish, and rather gravelly, and appeared very fit for the cultivation of wheat; maize, however, is almost the only kind of grain that is raised. Most of the emigrants, who come to settle

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in the country, travel along the skirts of the wood lately mentioned, or by the rivers Little and Big Barren, on account of the advantage of the meadows in that quarter, for the pasturage of cattle, and of which the inhabitants who reside in the most fertile of the wooded cantons, are in a great degree deprived, by reason of the paucity of grasses.

Every year, in March or April, the inhabitants set fire to the grass, which at this period is dry; because its extreme length, would for a fortnight or three weeks prevent the cattle from obtaining the new crop that begins to shoot. This custom is, however, generally condemned, and with reason; for, the firing being made too early, the new grass is deprived of its protection against the spring-frosts, by which its vegetation is retarded. This custom of burning the meadows was formerly practised by the natives, who came to hunt in these districts, and is still adopted by them in the other parts of North America. Their object for setting fire to the grass, was to attract the stags, bisons, &c. to the burnt parts, by which they could perceive them at a distance. It is only by actual observation, that the smallest idea can be formed of these dreadful conflagrations. The flames, which generally fill a line several miles in extent, are sometimes propelled by the wind with such rapidity, that men on horseback have not unfrequently been overtaken and destroyed by their violence. The American hunters, and the Savages, preserve themselves from this danger by a method as simple as it is ingenious. They quickly set fire to the part of the meadow in which they stand, and afterwards retire to the burnt spot, where the flames which threatened them have ceased for want of aliment.

CHAP. XVII.

GENERAL OBSERVATIONS ON KENTUCKY.—NATURE OF ITS SOIL.—FIRST ESTABLISHMENTS IN THAT STATE.—SMALL SECURITY FOR THE PROPERTY OF SETTLERS.—POPULATION.

THE State of Kentucky is situated between 36° 30′ and 39° 30′ lat. and between 28° and 29° of long. Its boundaries are, to the N. W. the Ohio for an extent of about seven hundred and sixty miles; to the E. Virginia, and to the S. the State of Tennassee. It is separated from Virginia by Sandy River, and the Laurel-hills, one of the principal chains of the Allegany Mountains. The extreme length of this State is about four hundred miles; and its greatest width nearly two hundred. This vast extent appears to rest upon a base of calcareous stone, covered by a stratum of vegetable mould, which varies in its composition,

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and is from several inches to ten and even fifteen feet thick. The limits of the immense stone-bank have not yet been accurately ascertained; but its thickness must be very considerable, from the appearance it exhibits at the rivers, the banks of which, particularly those of Kentucky and Dick-Rivers, rise in some parts perpendicularly to the height of three hundred feet, in which space nothing but this stone is perceptible. The soil of the Kentucky, though irregular, is not hilly, except in some few parts near the Ohio, and on the side of Virginia. Calcareous stone, and abundant mines of unexplored coal, are the only mineral substances observable. Iron mines are scarce, and, as far as I can recollect, one only is worked, which is by no means sufficient for the wants of the country.

Kentucky and Green-Rivers, the two largest in this State, empty themselves into the Ohio, after a course of three hundred miles; their water is so low in summer, that they may be forded a hundred and fifty miles from their mouth; but in winter and spring they are subject to such a great and sudden increase, that the water of the Kentucky, for instance, rises forty feet in twenty-four hours. This variation is still more striking in the secondary rivers, which empty themselves into it; for these, though often from ten to fifteen fathoms wide, contain so little water in summer, that almost all of them can be passed in that season without wetting one's feet; and the thread of water that winds over the bed of calcareous rock, is then reduced to the depth of only a few inches. Hence the Kentucky may be considered as a vast basin, which, independently of the natural flowing of its water through the channel of the rivers, lets a great quantity escape through internal apertures. The Atlantic part of the United States affords in this respect a perfect contrast to the Kentucky; for, after passing the Allegany Mountains, you can find no trace of calcareous stone; while the great and small rivers, however distant may be their sources, sustain no other alteration in the bulk of their water than what results from the proportion of rain that may fall in a season; and the springs, which are very numerous, afford water in abundance. This remark is particularly applicable to those Southern States, with which I am well acquainted.

From the succinct idea which I have given of Kentucky, it is easy to conceive, that the inhabitants are exposed in summer to the very serious inconvenience of a want of water; though we must except those establishments that are in the vicinity of the great rivers, or their principal streams. Hence it results, that many portions of land, even of the most fertile kind, are not cultivated; and their owners cannot get rid of them without great difficulty, because the emigrants will not make purchases without having an accurate knowledge of all local advantages.

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Of the three States to the west of the Alleganys, Kentucky was the first that was peopled. This country was discovered in 1770, by some Virginian hunters; and the favourable accounts which they gave of it, induced others to go there, though no establishment was formed in it before 1780. At that period, this vast country was not occupied by any Indian nation; they came to hunt in it, but all with one consent carried on a war of extermination against those who attempted to settle; from which circumstance, it acquired the name of *Kentucky*, which, in the native language, signifies "*the Land of Blood.*" When the Whites appeared, the Natives exhibited a still greater opposition to their settling; they for a long time carried death and desolation through those districts; and, according to their custom, put their prisoners to death with the most cruel torments. In this state things continued till 1783, at which time the population of the Americans having become so strong, that they could penetrate to the centre of the establishments; the natives were reduced to way-lay their enemies on the road, besides which, they were at that time abandoned by the English at Canada, who had animated and supported them during the war.

In 1783, the Americans began to open carriage-roads in the interior of the country; for till this period they had only paths for foot-passengers and those on horseback. As late as 1788, the Virginia road was the only one taken by emigrants, who went from the Eastern States to Kentucky: they first proceeded to Brockhouse, situated in Holstein, to the west of the mountains; and as the Government of the United States did not afford them any escort, they waited at this place till they had collected in sufficient numbers to pass in safety the Wilderness, an uninhabited space of one hundred and thirty miles in length, which it was necessary to travel through before they could arrive at Crab-Orchard, the first post occupied by the Whites. The enthusiasm for emigrating to Kentucky was then carried to such an extent in the United States, that in some years twenty thousand emigrants proceeded thither, and many of whom were so eager to go, that if they could not meet with a ready sale for the lands they previously possessed, they abandoned them. This influx of new colonists soon increased the price of land in Kentucky; insomuch, that from four or five *pence* per acre, they suddenly rose to eight or nine shillings. Knavery did not fail to profit from this speculation; and a number of illicit means were employed for selling the lands to advantage. False plans were even made, in which they traced rivers, favourable for the establishment of mills and other purposes, and thus many ideal lots, from five hundred to a hundred thousand acres, were sold in all parts of Europe, as well as

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in the great towns of the United States. In 1792, Kentucky, from the amount of its population, was admitted into the Union.

In 1782, the number of inhabitants in Kentucky did not exceed three thousand; but in 1790, it amounted to one hundred thousand; and in the general census of 1800, it is computed at two hundred and twenty thousand. At the time of my journey to Lexington, in August, 1802, they calculated its population to amount to two hundred and fifty thousand; including about two thousand negro-slaves. Hence in this State, where perhaps there cannot be found ten individuals twenty-five years of age, who were born there, the number of inhabitants is already as great as in seven of the old States, while there are only two whose population is twice as numerous. This rapid increase might have been much greater, but for one particular circumstance, which prevents emigration to those districts: I allude to the difficulty of establishing claims to landed property: for of all the States of the Union, it is in this that such claims are most the subject of controversy. I never stopped at the house of a single inhabitant, who did not appear convinced of the validity of his own title, while he doubted that of his neighbour. Amongst the numerous causes which have produced this incredible confusion in property, the principal may be considered the ignorance of the land-surveyors, or rather the difficulty they at first experienced in the pursuit of their operations. The continual state of war in which this country was then involved, often obliged them to suspend their labours, to avoid being shot by the Natives, who espied them in the woods. The danger they incurred was extreme; for it is well known, that a savage often goes fifty leagues to kill a single enemy; that he remains for several days together in a hollow tree to surprize him; and when he has succeeded, he takes off his scalp, and returns with the same rapidity. From this state of things it results, that not only the same lot has been measured several times over by different surveyors, but that it has often been divided by different lines, describing such and such portions of a lot to depend upon others adjacent; which in their turn have been subjected to the same misapplication with regard to others in their vicinity. In short, there are lots of a thousand acres, in which every hundred is the subject of contest. The *military rights* are, however, considered as more secure; but one remarkable circumstance is, that many of the inhabitants find a guarantee for their property in this confusion; for the law being particularly favourable to agriculture, has decreed, that the clearing and amelioration of the land shall be reimbursed by the person who may succeed in ejecting the first occupier; and as the estimation, on account of the extreme scarcity of hands, is always

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made in favour of cultivators, it follows, that many people are not inclined to improve their possessions, lest they should sustain a considerable loss, and be in their turns expelled by others, who may attack them at a moment when they least expect it. This uncertainty, with respect to landed property, is an inexhaustible source of long and expensive law-suits, by which the attornies gain considerable advantage.

CHAP. XVIII.

OF THE DISTINCTION OF THE LANDS.—TREES PRODUCED ON THEM.—ANIMALS PECULIAR TO KENTUCKY.

In Kentucky, as well as in Pennsylvania, Virginia, and the Carolinas, the lands are divided into three classes, relative to their fertility: in Kentucky they rank in the second class such lands as are to the east of the mountains, placed in the first; and in the third, such as in Georgia and South Carolina would be found in the second. I do not, however, pretend to say, that in the Eastern States there are not lands as fertile as those in the West, but they are scarce, and are seldom met with along the rivers, and in the vallies. In both these States the fertility of the land is appreciated by the different kinds of trees it produces; so that, where a lot is offered for sale, it is usual to specify the trees, which grow on different parts; though this rule has an exception with respect to the Barrens, which are very fertile, and contain black oaks and *Juglans hickery*, while in the forests these trees indicate the most sterile soil.

In all the fertile parts, covered with forests, the soil is entirely deprived of grasses, a few plants grow only here and there; and the trees are always so distant, that a stag may be perceived at a distance of a hundred, or hundred and fifty fathoms.

Although the Ginseng is not a plant peculiar to Kentucky, it is tolerably abundant, and as well as the *Panax cinquefolia*, is found in all parts of America, from Lower Canada to Georgia; it may also be met with in the environs of New York and Philadelphia, but it is so scarce, that the inhabitants do not take the trouble to seek for it. It grows on the declivities of mountains, in fresh and constantly shaded spots, where the soil is richest. A man can scarcely draw in one day more than eight or nine pounds of fresh roots, which are always less than an inch in diameter, even after fifteen years growth, if the number of impressions may be relied on that may be observed on the upper part of the neck of the root, and which are produced by the stalks that annually succeed. The form of the root is generally elliptic; and when it is bifurcated, which is not often, one of the

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divisions is much thicker and longer than the other. The seeds, which are of a striking red colour, and attached together, come to maturity between the 15th September and the 1st October.

The Ginseng was first discovered in Canada, by a French missionary, who, when he was convinced that this plant was the same as that which grows in Tartary, and the root of which is held in such high esteem by the Chinese, made it an object of commerce with China. For some time after the discovery, this root was sold for its weight in gold; but a commerce so advantageous, could not be of long duration. The Ginseng exported from America was so badly prepared, that it fell to a common price, an dat one time almost ceased. In Chinese Tartary the cultivation of Ginseng belongs exclusively to the Emperor: its harvest begins in autumn and continues the whole winter, in which season the root attains the highest perfection; and, by a very simple process, they give it a semi-transparency. In the United States, on the contrary, they begin to collect it in spring, and stop at the commencement of winter. Its root, which is then soft and watery, grows wrinkled by desiccation, but afterwards becomes extremely hard, and at length loses a third of its bulk, and nearly half its weight. Within the last four or five years, the trade of this root with China seems to have acquired additional activity, and the quantity exported thither may probably exceed thirty thousand pounds. Some persons have even began to imitate the Chinese method of rendering it transparent; and the Ginseng, thus prepared, is bought by the merchants of Philadelphia from the manufacturers at Kentucky, at six or seven dollars per lb. and is re-sold by them at Canton, at from fifty to a hundred dollars, according to the quality of the roots. At all events, the profit of this trade must be very considerable, since there are people in Kentucky, who themselves export it to China.

In Kentucky, and the Western Countries, there may be seen the same animals, which exist to the east of the mountains, and even in Canada; but shortly after the establishment of the Europeans, some species disappeared entirely, particularly the Elks and Bisons: the latter, however, were more common there than in any other part of North America, in consequence of the uninhabited state of the country; the quantity of canes and wild peas, which supplied them abundantly with food, and the licks or salt-grounds already mentioned. Their number was then so considerable, that they might be seen in companies from 150 to 200, while they were so daring, or so little accustomed to timidity, that they did not fear the approach of the hunters, who often killed them, for the mere sake of their tongues, which are considered as a great delicacy. When four years old, these animals weigh from twelve to fourteen hundred weight; and their flesh is said to be preferable

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to that of the ox: at present they are scarcely to be seen from the Ohio to the river of the Illinois, as they have nearly all passed the right bank of the Mississippi.

The only species of animals which are still common in the country, are the deer, bear, wolf, red and grey fox, wild cat, racoon, opossum, and three or four kinds of squirrels.

The animal that the Americans call the *wild cat*, is the *Felis Lynx*, or the Lynx of Canada; it is only a variety, and some authors have erroneously asserted, that the real wild cat, which is considered as the stock of the domestic animal of that name, existed in the United States, or more to the northward.

The Racoon, or *Ursus lotor*, is about the size of a fox, though not quite so high, and rather thicker. If taken young, it is easily tamed, and stays in the houses, where it catches mice in the night. The name of *lotor*, which means *washer*, is very appropriate for this animal, as it prefers hollow trees that grow on the banks of creeks, or rivulets that run through the swamps, and in these places it is generally found. This animal is very common in the Southern and Western States, as well as in the more distant parts of Pennsylvania and Virginia; it commits great devastation in the fields of maize, by climbing on the stalks, laying them by its weight, and nibbling the ears; the inhabitants hunt it with dogs during the night, as it rarely makes its appearance in the day-time. Its skin is esteemed throughout the United States for making hats, and sells at the rate of about twenty-four French sous or 10d. a piece.

Their squirrels are likewise a great pest to the owners of corn-fields. The *Sciurus Corolinianus* is of a grey colour, and rather larger than that of Europe; while their numbers are so considerable, that the inhabitants are obliged, three or four times a day, to send their children round the corn-fields to scare them. At the slightest noise they issue out by dozens, and take refuge in the trees, whence they descend, the instant the enemy has passed. Like the bears of North America, they emigrate on the approach of winter, at which time they appear in Kentucky in such great numbers, that the inhabitants are obliged to unite in order to expel them. This kind of hunting is sometimes considered as an excursion of pleasure; persons generally go two together, and in one morning often kill from thirty to forty. A single individual, on the contrary, can with difficulty kill any; for the squirrel, fixing himself on the trunk of the tree, turns successively in opposition to the hunter, so that the latter cannot hit him. I once attended a large party of this kind; where, for the dinner, which generally takes place in a part of the wood previously agreed on, they had roasted upwards of sixty of these

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animals. Their flesh is white, and very good; and this manner of dressing it, is preferable to any other.

Wild turkies, which begin to be very scarce in the Southern States, are still very numerous in those of the West. In the parts that are least inhabited they are so fearless, that they may be shot by the pistol; in the east, on the contrary, and particularly in the environs of the sea-ports, they can only be approached with difficulty: they are not alarmed at a noise, but they have a very penetrating sight, and the moment they perceive a hunter they flee with such rapidity, that for some minutes a dog cannot come up with them; and when they find themselves on the point of being taken, they frequently escape by taking to the wing. These birds generally harbour in the swamps, and along the rivers and creeks, whence they come out only in the morning and in the evening. They roost on the tops of the highest trees, where, notwithstanding their size, it is not easy to discover them. When they are not alarmed, they return to the same trees for several weeks together.

To the westward of the Mississippi, in a space of more than eight hundred leagues, there is only this one species of wild turkey to be met with: they are larger than those raised in the poultry-yards of France. In autumn and winter they feed principally on chesnuts and acorns; and, in those seasons when killed, they often weigh from 35 to 40 lb. The variety of domestic or English turkies came originally from this species of wild turkey: and, when it is not crossed with the common species, it preserves the primitive colour of its plumage, as well as that of its feet, which are of a deep red.

CHAP. XIX.

OF THE DIFFERENT KINDS OF CULTURE IN KENTUCKY. — EXPORTS OF TERRITORIAL PRODUCTS. — PEACH-TREES. — TAXES.

IN the State of Kentucky, as well as in the Middle and Southern States, nearly all the inhabitants, who live in the woods, cultivate their own lands, from which they never have more than the twentieth, thirtieth, or even the fortieth part of what they might produce. They assist each other at the time of harvest; and some who are in more easy circumstances, employ negro-slaves in the cultivation of their grounds.

In this State they raise tobacco, hemp, maize, and wheat; but the cultivation of cotton is precarious, on account of the early frosts. Those who form establishments here, always be-

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gin by the culture of maize; the soil in lands of the first class being so luxurious, that the corn is shed before it comes to an ear. The following is the process adapted. After opening furrows, by means of the plough, at about three feet from each other, they are intersected transversely by others at an equal distance, and seven or eight seeds are dropt at each point of intersection. If they all come forth, only two or three of the roots are suffered to remain, a precaution which is necessary to favour the progress of the vegetation. In the course of the season much labour is required to destroy the weeds, which grow uncommonly abundant, and towards the middle of the summer the leaves of the lower part of the stalk begin to dry, as do the others upwards in succession. As this desiccation takes place, the leaves are carefully carried off and preserved as winter-fodder for horses, which they prefer to the best hay.

In lands of the first class, maize grows to the height of ten or eleven feet; and on an average gives from forty to fifty English bushels per acre, though in more abundant years it frequently produces from sixty to sixty-five; and even in the third year of its cultivation, on some particular spots, it has afforded a hundred bushels. The bushel, which weighs between 50 and 55 lb. never sells for more than a quarter of a dollar, and sometimes does not fetch even half that price. The plough employed here, as well as in all the Middle and Southern States, is light, without wheels, and drawn by horses.

The culture of wheat is also of great importance. In 1802, the harvest of this grain was so abundant in Kentucky, that when I was at Lexington, it sold for only a quarter of a dollar per bushel, which very low price was attributed rather to the peace that prevailed in Europe, than to the excessive produce of the harvest.

The culture of tobacco is also considerable; and great quantities are exported. Rye is almost entirely employed for the distillation of whiskey; and oats are chiefly used as food for horses. Hemp is a considerable article of exportation, and flax is cultivated by many of the inhabitants, who make it into linen, for the use of their families, and barter the surplus for articles imported from Europe.

The Americans pay little attention to the culture of fruit-trees; and those hitherto planted by the inhabitants of Kentucky, consist only of peaches and apples, the former of which are very numerous, and arrive at the greatest perfection: there are five or six species, some of which are early and others late; and their pulp is white, red, and yellow. They are of an oval form, larger than those of France, and grow to perfection from kernels, without either being grafted or cut. They shoot so vigorously,

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that after the fourth year they are at their full size: the inhabitants generally plant them round their houses, though some have orchards of these trees, amongst which they turn their hogs, about two months before the fruit comes to maturity: these animals voraciously devour the peaches, which fall in great numbers, and break the stone for the purpose of eating the nut. From the immense quantity of peaches that are grown, they distill brandy, which they export and consume. A few of the inhabitants only have alembics, the others carry their peaches to the houses of the former, where they are distilled; and those who own the machines receive a portion of the produce for their trouble. This peach-brandy is sold for a dollar per gallon.

In Kentucky the taxes are divided in the following manner: they pay a poll-tax, equal to forty French sous, for every White; thirteen for every Negro; six for each horse; fifty-two for a hundred acres of land of the first class, whether cultivated or not; thirty-five for a hundred acres of the second class; and thirteen for the same quantity of the third class. Though the taxes are very moderate, and nobody complains of them, yet a great number of the contributors are always behind in their payments, as is evident from the repeated advertisements of the collectors, which I saw stuck up in different parts of the town of Lexington; and I understand, that a similar difficulty in obtaining the duties prevails in all the Eastern States.

CHAP. XX.

SOME ACCOUNT OF THE MANNERS OF THE INHABITANTS OF KENTUCKY.—HORSES AND CATTLE.—NECESSITY OF GIVING THEM SALT.—OF THE WILD HORSES TAKEN IN THE PLAINS OF NEW MEXICO.—EXPORTATION OF SALT PROVISIONS.

FOR some time the inhabitants of Kentucky have devoted their attention to the raising of horses; and by this lucrative branch of trade, they have turned to much advantage their superabundant quantity of maize, oats, and other fodder. Virginia, of all the States in the Union, is considered as having the finest saddle and carriage-horses, from which originally came those that now exist in this country, as they were brought hither by the emigrants from Virginia. Their number, however, increases daily, as nearly all the inhabitants endeavour to improve their breeds; and they attach so much importance to this improvement, that the owners of fine stallions receive from fifteen to twenty dollars for covering a single mare. Many of these stallions, as I have been assured, though they come from Virginia, are imported from

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England, and are remarkable for their fine legs, well-proportioned head and elegant figure. But the inhabitants make no attempts to improve the breeds of their working-horses, which are small and lean, and in every respect inferior to those used for the same purpose in France.

Some individuals pretend to understand the diseases of horses, but I never met with one who had any regular ideas of the veterinary art, so necessary to be known in a breeding-country, and which has attained such great perfection in England and France. In Kentucky, as well as in the Middle and Southern States, the grain generally given to the horses is maize, which is considered twice as nutritive as oats, though they are sometimes given together. In this State they do not fix rations for the animals, but fill the manger with maize, which they eat at pleasure, retire from the stable to their pasture, and return when they please. They are not tied up, and yet they almost always return to the spot they are first placed in. The stables are nothing but log-houses, open on all sides to the air, as the space between the trunks of the trees is not filled up with clay.

The Southern States, and particularly South Carolina, are the principal marts for the fine horses from Kentucky. Their owners take them in troops of fifteen, twenty, and thirty together, towards the commencement of winter, at which time they have nothing to dread from the yellow fever. The journey from the environs of Lexington to Charlestown was made in eighteen or twenty days; and this distance, which is about seven hundred miles, causes a difference of from twenty-five to thirty per cent. in the price of the animals. A fine saddle-horse at Kentucky costs from 130 to 140 dollars.

During my residence in this State, I had an opportunity of seeing those wild horses, that are taken on the plains of New Mexico, and which have descended from those formerly introduced by the Spaniards. They catch them by means of domesticated horses, which run faster, with which they come near enough to be entangled: they are then brought to New Orleans and Natches, where they are sold for about fifty dollars a piece, and are sometimes bought by the conductors of the boats, who return over-land to Kentucky. The two which I saw and tried were of a roan colour, of a middle size, having a bad and thick head, and disproportionate neck, with heavy limbs and thin hair. These horses trot excessively uneasy; they are very capricious, and are hard to hold in by the bridle, which they often contrive to slip, and then make their escape.

The number of horned cattle in Kentucky is very considerable; and I often observed from forty to fifty in the same stable. Those that form an article of commerce are bought lean, and

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conveyed in troops from two hundred to three hundred, by the river Potomack, to Virginia, where they are sold to the graziers, who fatten them for the markets of Baltimore and Philadelphia. The price of a good milch-cow at Kentucky, is from ten to twelve dollars; milk forms the principal food of the inhabitants, and the butter, which they do not consume, is barrelled and exported to the Antilles.

They raise very few sheep; for though I probably travelled more than two hundred miles in this State, I only saw them on four farms: their flesh is not much esteemed, and their wool is of the same quality as that of the sheep in the Eastern States. The greatest number of these animals is reared at Rhode-Island.

Of all domestic animals pigs are the most numerous. There is scarcely any individual without them, while many persons have from fifty to two hundred. These animals never quit the forests, but always find in them the means of subsistence, particularly in autumn and winter. They become extremely wild, and go about in troops. When attacked by a dog, or any other animal, they unite and form a circle for their defence; they have a thick body, small tail, short legs, and erect ears. Every settler knows those which belongs to him, by his particular manner of cutting the ears. They sometimes go to the very extremity of the forests, and do not return for several months; but they are accustomed to come from time to time to the residences of their owners, by the enticement of a little maize. It is surprising that in so vast a country, covered with woods, so thinly peopled in proportion to its great extent, and where there are so few injurious animals, the hogs have not increased to such a degree as to become entirely wild.

In all the Western States, as well as in those to the east of the Allegany Mountains, at a distance of two hundred miles from the sea, it is necessary to give salt to the cattle, for without it, whatever food is given to them, they will not fatten, and it is so important to them, that they come to the house-door, every week or fortnight, in quest of it, and will spend whole hours in licking the manger on which a few particles have been sprinkled. This desire is most evident amongst the horses, perhaps because salt is most frequently given to them.

Salt provisions are another important article of commerce in Kentucky. The quantity exported, in the first six months of the year 1802, is stated to have been two hundred and seventy-two thousand weight of smoked pork or bacon, and two thousand four hundred and eighty-five barrels of pickled pork.

Notwithstanding the superabundance of grain raised in this country, there is scarcely an individual who rears poultry. This branch of domestic economy would, however, be of no expence,

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but would make an agreeable variation in their food. Two principal causes, however, seem to prevent it: the first is, that the use of salted meats, (a use to which the cutaneous diseases, so frequent among them, may be attributed), gives them a distaste for this sort of provisions, which they, perhaps, find too insipid; the second is, that the fields of maize, which are usually contiguous to the houses, would be exposed to great devastations, the inclosures with which they are surrounded being only calculated to keep out the cattle and pigs.

The inhabitants of Kentucky, as has been already mentioned, almost all originally came from Virginia, and particularly from the most remote parts of that State, and, with the exception of the lawyers, physicians, and a few of the citizens, who have received an education suitable to their professions, in the towns on the Atlantic, they retain the manners of the Virginians. They carry a passion for gaming and spirituous liquors to excess, and sanguinary quarrels are frequently the consequence. They meet often at the taverns, particularly during the sitting of the courts of justice, when they pass whole days in them. Horses and lawsuits are the usual subjects of their conversation. When a traveller arrives, his horse is valued as soon as they can perceive him. If he stop, they offer him a glass of whiskey, and a multitude of questions follow, such as, Where did you come from? Where are you going? What is your name? Where do you reside? Your profession? Have the inhabitants of the country you have passed through any fevers, &c. These questions, which are repeated a thousand times, in the course of a long journey, at length become tiresome; but, with a little address, it is easy to stop them. They have, however, no other motive for them but that curiosity so natural to persons living retired, in the midst of woods, and who scarcely ever see a stranger. They are never influenced by suspicion; for, from whatever part of the world a stranger comes to the United States, he may enter all the seaports and principal towns, remain in them, or travel, as long as he pleases, through every part of the country, without any public officer inquiring who he is, or what are his reasons for travelling.

The inhabitants of Kentucky are very willing to give strangers the information they require respecting the country in which they reside, and which they consider as the best part of the United States; as that in which the soil is most fertile, the climate most salubrious, and where all who have come to settle, were led by the love of liberty and independence. In their houses they are decent and hospitable; and, in the course of my journey, I preferred lodging with them, rather than in the taverns, where the accommodation is frequently worse and much dearer.

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The women seldom interfere in the labours of the field: they remain at home, assiduously engaged with domestic cares, or employed in spinning hemp or cotton. This labour alone is considerable, for there are few houses in which there are not four or five children.

Among the different sects which exist in Kentucky, those of the Methodists and Anabaptists are the most numerous. The religious enthusiasm has, within the last seven or eight years, acquired a new degree of strength in these regions; for, independently of the Sundays, which are scrupulously observed, they meet, during the summer, in the course of the week, to hear sermons, which last for several days in succession. These meetings, which often consist of two or three thousand persons, who come from ten or twelve miles round, take place in the woods. Every person brings his own provisions, and they pass the night round fires. The ministers are very vehement in their discourses; and frequently, in the middle of their sermons, many of the congregation become frantic, and fall down, inspired, exclaiming, *Glory! Glory!* It is chiefly, however, among the women that these absurdities take place. They are then taken from among the crowd, and put under a tree, where they lie supine for a long time, uttering deep groans.

At some of these assemblies as many as two hundred will fall in this manner, so that a number of others are required to help them. While I was at Lexington, I attended one of these meetings. The bette-rinformed people differ from the opinion of the multitude with respect to this species of extacy; and thus they frequently draw upon themselves the appellation of *bad folks*. But this is the extent of their intolerance; for when they return from the sermon, religion seldom forms a subject of conversation. Although divided into different sects, they live in the greatest harmony, and when an alliance is projected between families, difference of religion never causes any impediment: the husband and wife follow the worship they approve; as do their children, when they have arrived at maturity, without the least opposition from their parents.

Throughout the Western Country, the children are punctually sent to school, to learn reading, writing, and the elements of arithmetic. These schools are supported at the expence of the inhabitants, who procure masters as soon as the population and their means enable them: it is therefore very uncommon to meet with an American who is unable to read and write. On the Ohio, and in the Barrens, however, where the settlements are very widely dispersed, the inhabitants have not yet been able to procure this advantage.

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CHAP. XXI.

NASHVILLE.—ITS COMMERCIAL RELATIONS.—INFORMATION RELATIVE TO THE ESTABLISHMENT OF THE NATCHES.

NASHVILLE, the principal and the oldest town of this part of Tennessee, is situated on the river Cumberland, the banks of which, in this place, consist of a mass of lime-stone, upwards of sixty feet in height. With the exception of seven or eight brick houses, the remainder, consisting of about 120, are built with planks, and dispersed over a space of 25 or 30 acres, in a spot where the rock is almost entirely bare. Water can be obtained only by making a very long circuit to reach the river-side, or by descending a very steep and dangerous path. While I was there, one of the inhabitants was endeavouring to perforate the rock to make a well, but he had not dug many feet, and the great hardness of the stone rendered the work long and difficult.

Although this small town has been built fifteen or sixteen years, it does not contain any manufactory or public establishment.—There is, however, a printing-office, which publishes a newspaper once a week. A college, for the endowment of which some rents and other revenues are appropriated, it is still in its infancy; only seven or eight young men being yet assembled, under one professor.

In this town the price of labour is higher than at Lexington, and there is a similar disproportion between this price and that of provisions. Here are twelve or fifteen stores, which are supplied either from Baltimore or Philadelphia; but they appear to be worse provided than those of Lexington, and the goods, though dearer, were of an inferior quality. This high price is partly to be attributed to the expence of conveyance, which is more considerable, on account of the greater distance which the boats for Tennessee have to make on the Ohio. For, after passing Limestone, the place of landing for Kentucky, and which is 425 miles from Pittsburgh, they have to make a farther navigation of 619 miles to the mouth of the river Cumberland, and 180 miles, up that river, to reach Nashville; which makes the total distance from Philadelphia 1521 miles, 1200 of which are by water. Several of the traders get their commodities from New Orleans, whence the boats proceed up the Mississippi, Ohio, and Cumberland. This last distance is 1243 miles; that is to say, a 1000 miles from New Orleans to the mouth of the

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Ohio; from thence, 63 miles to that of the Cumberland, and 180 miles on this river to reach Nashville.

Very few planters undertake the exportation of their own produce, which consists principally of cotton: but they sell it to the merchants of Nashville, who send it by the river to New Orleans, whence it is forwarded to New York or Philadelphia, or exported directly to Europe. These merchants, like those of Lexington, do not always pay money for the cotton which they buy, but oblige the planters to take goods in exchange, which makes a considerable increase to their profits. Much of it is also sent by land into Kentucky, for the supply of individuals.

On my journey in 1802, they were sending cotton by the Ohio to Pittsburgh, for the first time, to be afterwards distributed through the back parts of Pennsylvania and Virginia. I met the boats loaded with it near Marietta, which were pushed along the river with a pole, and went about twenty miles a day. Thus those parts of the Western States which are farthest asunder, are cemented by a commercial intercourse, of which cotton is the basis, and the Ohio the link of communication; while the result of this intercourse will give a greater degree of prosperity to this part of Tennessee, and secure to its inhabitants very superior advantages over those of Kentucky and the Ohio, the territorial productions of which are not of a nature to meet with a great sale either at home or in the neighbouring countries.

I had a letter from Dr. Brown, of Lexington, for Mr. W. P. Anderson, a gentleman of the law, at Nashville, who received me in the most obliging manner.

The inhabitants have an easy and unceremonious deportment. On the day of my arrival, I had hardly dismounted when some of them, who happened to be at the tavern where I stopped, invited me to visit them at their own habitations.

All the inhabitants of the Western Country who go to New Orleans by the river, on their commercial concerns, and return by land, pass through Nashville, which is the first town they arrive at after leaving Natches. The distance between them is six hundred miles, and is entirely uninhabited; they are therefore obliged to carry provisions on horseback for the whole journey. It is true, they pass through two or three of the villages of the Chicasaw Indians; but, instead of being able to procure any thing in them, the Savages are so ill supplied themselves, that it is often difficult to avoid being obliged to divide with them what the travellers have. Several persons, who have travelled this road, informed me that, for a distance of four or five hundred miles from Natches, the country is very even; the soil sandy, partly covered with pines, and not well adapted for any kind of culture; but that the banks of the Tennessee river are, on the contrary,

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exceedingly fertile, and even superior to the richest districts of Kentucky and Tennessee.

The settlement of Natches, which is known by the name of the *Mississippi Territory*, daily becomes more prosperous, notwithstanding the insalubrity of the climate, which is so great, that three-fourths of the inhabitants are annually affected, during the summer and autumn, with intermitting fevers: the great profit, however, arising from the culture of the long-woolled cotton, draws thither a number of emigrants, and the population already amounts to five thousand Whites, and three thousand Negroes.

The road leading to Natches was of late only a path, winding through those immense forests; but the Federal Government has just ordered a new one, which is on the point of being completed, and which will be one of the finest in the United States, as well for its breadth, as for the solidity of the bridges built over the small rivers which cross it. To these advantages, it will add that of being shorter than the other by nearly a hundred miles.

CHAP. XXII.

DEPARTURE FOR KNOXVILLE.—ARRIVAL AT FORT BLOUNT.—OBSERVATIONS ON THE DESICCATION OF THE RIVERS DURING THE SUMMER.—HOUSES ON THIS ROAD.—FERTILITY OF THE SOIL.—EXCURSIONS IN A CANOE ON CUMBERLAND RIVER.

ON the 5th of September I left Nashville, to proceed to Knoxville, with Mr. Fisk, who was sent by the State of Tennessee to determine, in concert with the commissioners from Virginia, the boundaries between the two states in a more accurate manner. On the 9th we arrived at Fort Blount, which is built on the river Cumberland, seventy miles from Nashville. On the road we stopped with different friends of Mr. Fisk; and, among others, with General Smith, one of the oldest inhabitants of this country, where he has resided sixteen or seventeen years. America is indebted to him for the best map of this State, which is given in the Geographical Atlas, published at Philadelphia. He acknowledged, however, that this map, which has been some years drawn up, is in many respects imperfect. The general has a fine estate, cultivated with maize and cotton; and a well-constructed distillery, where he makes peach-brandy, which he sells for a dollar per gallon. He employs his leisure in chemistry.

During our journey we also visited General Winchester, who

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was finishing a stone-house, of an elegant kind for the country; it contains four large rooms on the ground-floor, a first floor, and an attic story. The carpenters had been brought from Baltimore, a distance of near 700 miles. The stone is of a calcareous nature; and there is not any other kind in this part of Tennessee, except the rounded flints which are found in the beds of some of the rivers, and originate in the mountainous districts, whence they are conveyed by the strength of the torrents. Few of the inhabitants, however, build in this way, on account of the price of labour, masons being still more difficult to procure than carpenters.

Near the General's house runs a river of forty or fifty feet in breadth, which we crossed almost with dry feet. Its banks, in some places, are upwards of twenty-five feet in height, and the bottom of its bed is formed by one single channel, furrowed with smaller ones, three or four *lines** broad, by as many in depth. The small quantity of water which it at this time contained, trickled through these furrows; but in the winter the waters are so abundant that, by means of a sluice, a sufficient quantity is diverted from it to turn a mill, which stands upwards of thirty feet in height. We had already passed several of these rivers, which we could step over, but on which, in the winter, ferry-boats are necessary.

A few miles from General Winchester's, and out of the road, is a small town, which has been built some years; the name of Cairo has since been given to it, in commemoration of the capture of Cairo by the French.

Between Nashville and Fort Blount, the plantations, though always in the midst of the woods, are, however, so near each other on the road, that it is very uncommon not to see one in every two or three miles. The inhabitants reside in good log-houses; most of them have Negroes, and they appear to live happy, and quite secure from want. In all this tract the soil is slightly unequal, but sometimes entirely level, in general excellent; and the forests are very beautiful. This extreme fertility is, however, particularly observable about fifty miles from Nashville, and a few miles before arriving at Major Dixon's, at Dixon's Spring, where I stopped a day and a half. Considerable portions of the forests in the environs are filled with the reeds or canes of which I have already spoken, and which grow so close that a man concealed amongst them cannot be perceived at ten or fifteen feet distance. Their bushy foliage forms a mass of verdure, which relieves the eye in the midst of these solitary and silent forests. I have already mentioned that, in proportion

* This is one of the new-fangled French terms in geometry, which we know not how to translate or explain.

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as new habitations are formed, these reeds disappear, because the cattle prefer their leaves to every other species of vegetable, and destroy them more by breaking the stems of the plants than by browzing their tops. The pigs also contribute to their destruction, by turning up the earth in search of the young roots.

Fort Blount was constructed about eighteen years ago, to protect the emigrants, who at that time came to settle in Cumberland, against the Savages, who made incessant war upon them, to drive them back; but a peace having been concluded, and the population being now greatly increased, they are unable to do them any further injury, and the fort has been destroyed. At present there is only one good plantation on this spot, which belongs to Captain Sampson, with whom Mr. Fisk usually resides. During the two days we stopped with him, I made excursions for several miles on the river Cumberland, in a canoe. This method of examining natural productions, always in greatest variety on the banks of rivers, is more convenient than any other, especially when, as in this case, the river is confined between enormous rocks, so steep that a man on foot cannot approach them without great difficulty. In these excursions I enriched my collection with the seeds of several trees and plants peculiar to the country, and with various other subjects of natural history.

CHAP. XXIII.

DEPARTURE FROM FORT BLOUNT FOR WEST-POINT, ACROSS THE DESERT.—BOTANICAL EXCURSIONS ON ROARING RIVER.—APPEARANCE OF THE BANKS OF THIS RIVER.—SALINE PRODUCTS FOUND THERE.—CHEROKEE INDIANS.—ARRIVAL AT KNOXVILLE.

ON the 11th of September we went from Fort Blount to Blackborn's, whose residence, situated fifteen miles from this fort, is the last possessed by the Whites before reaching the line which separates the territory of the United States from that of the Cherokee Indians. As far as West-Point, on the Clinch, this boundary is an uninhabited country, of eighty miles in width, bearing the name of the *Wilderness*, and of which the mountains of Cumberland occupy a considerable portion. Mr. Fisk being obliged to attend the court of justice, which was held some miles farther, in the county of Jackson; we postponed crossing the *Wilderness* for a few days: and I took the opportunity of his absence to visit Roaring River, one of the branches of the Cumberland. This river, which is from ten to fifteen fathoms in breadth, receives its name from the confused noise heard for upwards of a mile, and occasioned by the falls of the water, produced by the sudden depression of its bed, which consists of

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large flat stones, contiguous to each other. These falls, six, eight, or ten feet in height, are so close, that several of them occur in a space of fifty or a hundred fathoms. Large stones, five or six feet in diameter, and perfectly round, are seen lying in the middle of the river, without a possibility of ascertaining how they could get there.

The right bank of Roaring River is, in some places, of eighty or a hundred feet in height, and, at this elevation, is overtopped by rocks, which project fifteen or twenty feet, and cover thick beds of horizontal ferrugineous schistus. The laminæ of these have so little adhesion, and are so friable, that, on the slightest touch, they break off in pieces of a foot long, and fall spontaneously to powder, by which means deep excavations are at length formed under these rocks. On the plates of schistus least exposed to the action of the water and the light, a kind of white efflorescence appears, of an extreme tenuity, and greatly resembling snow.

There are on the banks of this river, and in other parts of Cumberland, many deep caverns, in which are found masses of an aluminous substance, so near the degree of purity required for the operations of dying, that the inhabitants collect it for their own use, and also export it to Kentucky. They cut it in pieces with a hatchet; but none of them are acquainted with the processes employed on the old continent for preparing the different substances, as they are met with in commerce.

Several large rivulets, after meandering through the forests, terminate on the steep banks of this river, whence they rush with violence into its bosom, forming magnificent cascades of several fathoms in breadth. The permanent humidity produced here by these cascades facilitates the growth of a multitude of plants, which grow among the thick moss spread over the rock, and form a very beautiful extent of verdure. These various circumstances render the sides of Roaring River extremely cool, and give them an appearance totally different from those of the other rivers which I had hitherto passed.

Major Russel, with whom I went to lodge after leaving Blackborn, and where I was rejoined by Mr. Fisk, supplied us with provisions for our two days journey through the territory of the Cherokees. Notwithstanding the good understanding now subsisting between the Whites and these Indians, it is always prudent to form a company of five or six to cross their country. However, as we were far from the usual place of rendezvous, at which travellers wait, we determined to set off alone, and arrived safely at West-Point. The country is very mountainous, and we were unable to go further than forty-five miles on the first day, though we did not stop till midnight. We encamped near a small river where there was plenty of grass, and, after having made a

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fire, lay down in our blankets, watching alternately, to enable our horses to graze more at large, being apprehensive of the Savages, who sometimes steal them.

On the second day we met a party of eight or ten Indians, who were in quest of summer-grapes, and chinquapins, a species of small chesnut, superior in taste to those of Europe. As wewere not above twenty miles from the West-Point, we gave them the remainder of our provisions, which was very pleasing to them. To them bread is a great luxury, their common food being only deer's flesh roasted.

The road across this part of the Indian territory passes over the Cumberland mountains: it is as wide and as even as those in the environs of Philadelphia, on account of the great number of emigrants who travel over it, in their way to the western country. Forty miles from Nashville we met some wealthy emigrants, travelling in a carriage, followed by their negroes on foot, who had passed it without any accident. Small boards painted black, and nailed against the trees, at every third mile, show travellers how far they have gone.

In this part of Tennessee the forests are composed of all the species of trees, which belong to the mountainous districts of North America, such as oaks, maples, and walnuts. Pines also abound in places where the soil is inferior. But what appeared to me very extraordinary was, to see parts of the woods, of several miles in extent, where all the pines, which amounted to, at least, a fifth of the other trees, had died in the preceding year, and still retained their withered leaves. I was unable to discover the causes of this singular phenomenon: I only learned that it occurs every fifteen or twenty years.

The following trait will give an idea of the atrocious character of some of the American settlers on the frontiers. One of them, in the neighbourhood of Fort Blount, had lost a horse, which had strayed from his house, and gone a considerable distance into the Indian territory. A fortnight after, it was brought back by two of the Cherokees: they were not fifty paces from the house, when this man, on perceiving them, shot one of them dead; the other took to flight, and carried the news to his countrymen. The murderer was put in prison, but was released in a short time, for want of proof of his crime, though he remained convicted in the public opinion. All the time he was kept in prison the Indians suspended the effects of their resentment, in the hope that the death of their countryman would be avenged; but, scarcely were they informed of his enlargement, when they killed a White at more than 150 miles from the place, where the first murder had been committed. It has always been found impracticable to make the Indians, of whatsoever nation,

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comprehend, that chastisement should only be inflicted on the guilty: they believe that the murder of one, or of several of their nation, must be avenged by the death of an equal number of individuals belonging to the nation of him who occasioned the loss of their people. This is a custom which it is impossible to make them renounce, particularly if the murdered person belonged to a family of distinction; for, among the Creeks and Cherokees, there exists a class superior to the commonalty of the nation. These Indians a e above the middle-size, well proportioned, and rather fleshy, considering the compulsory fasts they frequently endure when hunting. The rifle is the only fire-arms they make use of; but they are very expert with it, and kill at a great distance. The common dress of the men consists of an European shirt, which they leave loose, and of a piece of blue cloth, half an ell in length, which serves them for breeches: they pass it between their thighs, and fasten the two ends to their girdle, before and behind. They wear long gaiters and shoes, or socks, of prepared deer's skin. On particular occasions some of them appear in a coat, waistcoat, and hat, but not breeches: the natives of North America have never been able to adopt this part of our dress. They leave only one tuft of hair on the top of their heads, formed into several tresses, which hang down the sides of their faces, and very frequently the ends are decorated with feathers, or small pipes of silver. A great number of them perforate the gristle of the nose to put rings into it, and cut their ears, which are lengthened to two or three inches, by means of pieces of lead hung to them, when they are very young. They paint their faces red, blue, or black.

A man's shirt, and a short petticoat, form the dress of the women, who also wear gaiters and socks of deer's skin: they permit all their hair to grow, which, like that of the men, is of a jet black; but they do not pierce the nose, or cut the ears. In winter both men and women wrap themselves in a woollen blanket, to protect them from the cold.

I learnt at West-Point, from several people who make frequent journies among the Cherokees, that for some years past they have attended to the cultivation of their lands, and have made great progress. Some of them have good plantations, and also negro slaves. Several of the women spin, and weave cotton stuffs. The Federal Government devotes a sum annually to supply them with agricultural and other implements.

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CHAP. XXIV.

KNOXVILLE.--COMMERCIAL RELATIONS.—TREES GROWING IN ITS ENVIRONS.—CONVERSION OF SOME PARTS OF THE MEADOWS INTO FORESTS.—GREENSVILLE.—ARRIVAL AT JONESBOROUGH.

KNOXVILLE, the seat of government of the State of Tennessee, is situated on the river Holston, which, at this place, is 150 fathoms in width. The houses, in number about 200, are, almost all, of wood. Although it has been built eighteen or twenty years, this little town has not yet any kind of establishment or manufactory, except some tanneries. Commerce, however, is brisker here than at Nashville. The stores, of which there are fifteen or twenty, are also better provided. The merchants obtain their supplies by land, from Philadelphia, Baltimore, and Richmond, in Virginia, and, in return, send, by the same channel, the productions of the country, which they buy from the farmers, or take in exchange for their goods. Baltimore and Richmond are the towns with which they have the greatest dealings. The price of carriage from Baltimore is six or seven dollars the quintal. It is reckoned 500 miles from this town to Knoxville; 640 to Philadelphia; and 420 to Richmond.

They also send flour, cotton, and lime, to New Orleans, by the river Tennessee; but this method is not much used, the navigation of this river being very much interrupted, in two different places, by shoals and rocks. It is reckoned about 600 miles from Knoxville to the efflux of the Tennessee into the Ohio, and 38 miles from thence to that of the Ohio, into the Mississippi.

We stopped at Knoxville, at Haynes's, who keeps the best tavern, the sign of the General Washington. Travellers, with their horses, are accommodated here at the rate of a dollar per day. On the 17th of September I took my leave of Mr. Fisk, and travelled towards Jonesborough, 100 miles from Knoxville, and at the bottom of the high mountains which separate North Carolina from the State of Tennessee.

I crossed the river Holston at Macby, fifteen miles from Knoxville: here the soil becomes better, and the plantations are nearer together, although still so distant as not to be within sight of each other. At a short distance from Macby, the road, for the space of a mile or two, runs beside a coppice, very thickly

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set with trees, the largest clumps being twenty or twenty-five feet across. I had never seen any part of a forest in a similar state; and I made this observation to the inhabitants of the country, who informed me that this spot was formerly part of a barren, or meadow, which had become naturally re-covered with wood within the last twelve or fifteen years, since the custom of setting fire to them, as is practised in all the Southern States, had been discontinued. This circumstance seems to prove, that the extensive meadows of Kentucky and Tennessee owe their origin to some conflagration, which had consumed the forests, and that they are preserved in that State by the custom, which still prevails, of setting fire to them annually. When on these occasions chance preserves any spots of them for a few years from the ravages of the flames, the trees spring up again; but, being extremely close, the fire, which at length catches them, burns them completely, and again reduces them to the state of meadows. Hence it may be concluded that, in these countries, the meadows must continually encroach upon the forests; and, in all probability, this was the case in Upper Louisiana and New Mexico, which are only vast plains, to which the savages set fire annually, and where there is not any tree to be met with.

On the first day I stopped in a place where the majority of the inhabitants were Quakers, who had come from fifteen or eighteen years before from Pennsylvania. The one with whom I lodged had a good plantation, and his log-house was divided into two apartments, which is very uncommon in this country. Some very fine apple-trees were planted round the house, which, although raised from seeds, produced fruit of an extraordinary size and excellent quality: this is another proof how well these countries are adapted for the culture of fruit-trees. Here, as in Kentucky, the preference is given to the peach, on account of the brandy made from it. At my host's I met with two families of emigrants, consisting together of ten or twelve persons, who were going to settle in Tennessee. Their torn garments, and the bad plight of the children, who followed barefooted, and in their shirts, were indications of their poverty; a very uncommon occurrence in the United States. The riches of the inhabitants of the Western Country do not, however, consist in money; for I am well convinced that a tenth of them do not possess a single dollar: but each man lives on his own freehold, and derives from it an abundance of every necessary of life; and the money arising from the sale of a horse or a few cows is always more than sufficient to procure him all those secondary articles, which come from the English manufactories.

On the following day I passed near an iron work, situated thirty miles from Knoxville, and stopped a short time to take a

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specimen of the ore. The iron obtained from it is said to be of an excellent quality. At this place the road divides into two branches, both leading to Jonesborough; but, as I was desirous of seeing the banks of the river Nolachuky, celebrated in this country for their fertility, I took that to the right. Six or seven miles from the iron-work, small rock crystals are found on the road; they are two or three lines in length, and beautifully transparent. The faces of the pyramids, which terminate the two extremities of the prism, are parallel and equal: they are uncombined, and dissemminated in a reddish, slightly argillaceous land.—In less than ten minutes I collected forty of them.

On the 21st I arrived at Greenville, which does not contain more than forty houses, built of squared beams, arranged like the trunks of trees of the log-houses. From hence to Jonesborough is twenty-five miles. In the interval the country is rather hilly; the soil is more adapted to the culture of wheat than of maize; and the houses on the road are at a distance of three miles from each other.

Jonesborough, the last town in Tennessee, contains about 150 houses, built of planks, and standing on both sides of the road. The place contains four or five stores, and the merchants who keep them trade with Baltimore and Richmond. Every article of English manufacture is sold very dear here, as well as at Knoxville A newspaper, in large folio, is published here once a week. Indeed papers are hitherto the only works which have been printed in those towns or villages lying to the westward of the Alleganies, where printing offices are established.

CHAP. XXV.

REMARKS ON THE FIRST ESTABLISHMENTS TO THE WEST OF TENNESSEE, AND ON THE TREES PECULIAR TO THAT COUNTRY.

IT was in the year 1780 that the Whites first attempted to cross the Cumberland Mountains, and to settle in the environs of Nashville; but the emigrants did not arrive in great numbers before 1789. For several years they were obliged to maintain a sanguinary war with the Cherokee Indians; and, as lately as 1795, the establishments of Holston and Kentucky had no intercourse with those in Cumberland, except by caravans, in order that they might cross the extensive uninhabited country between them in safety; but, for five or six years, since peace has been made with the natives, the communication between these countries is perfectly established, and, although not much frequented,

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it may be travelled with as great security as any part of the Atlantic States.

This country having been peopled since Kentucky, measures were taken from the first to avoid the great confusion which exists with respect to the rights of property in the latter State: consequently, the titles here are considered as more valid, and much less liable to be disputed. This reason, the extraordinary fertility of the soil, and a milder temperature, are cogent motives which attract the emigrants from the Atlantic States, rather to West Tennessee than to Kentucky. The number of inhabitants is estimated at 30,000, and 5000 or 6000 negro slaves.

With very few exceptions, the different species of trees and shrubs which constitute the mass of the forests, are the same as those I saw in the most fertile parts of Kentucky. The *Gleditsia tricanthos*, honey locust, is, however, more common here: the Indians made their bows of the wood of it before they adopted fire-arms.

A tree is found, more particularly in these forests, which, in the form of its fruit, and the position of its leaves, appears to have a great resemblance to the *Sophora japonica*, with the wood of which the Chinese dye their silk yellow. My father, who discovered this tree in 1796, thought it might be employed for the same use, and become an important article of commerce to the country. Several persons being anxious to know if it were possible to fix the beautiful yellow colour which its wood communicates to water by simple, cold, infusion, I took the opportunity of my residence at Nashville to send 20lb. weight of it to New York, one half of which was to be delivered to Dr. Mitchill, professor of chemistry, and the other to be forwarded to Paris. This tree seldom grows higher than forty feet, and thrives best on the Knobs, a species of little hills, the soil of which is very rich. Some of the inhabitants have remarked that there is not any tree in the country which yields such an abundance of sap in the spring. The quantity it furnishes even exceeds that of the sugar-maple, although the latter is double its size. The time of my residence at Nashville, being that of the maturity of the seeds of this tree, I collected a small quantity, and brought them with me: they have almost all come up. Some of the stems are already twelve or fifteen inches in height.

West Tennessee is less salubrious than Holston or Kentucky. A warmer and more humid temperature occasions intermitting fevers in the summer. The emigrants, in the first year of their establishment, and even travellers, are also, at this season, subject to an exanthematic affection, which makes them suffer se-

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verely, for ten or twelve days, from the extreme itching produced by a multiplicity of pimples, which first appear on the abdomen, and afterwards on the shoulders, arms, and thighs. This indisposition, with which I was attacked before I reached Fort Blount, yielded to a cooling regimen and to bathing, which I practised for several days in Cumberland and Roaring Rivers. The name given to this disease in the country is the *Tennessee Itch*.

CHAP. XXVI.

OF THE DIFFERENT KINDS OF CULTURE IN WEST TENNESSEE, AND PARTICULARLY OF THAT OF COTTON.—MODE OF TAKING LANDS BY SOME EMIGRANTS.

WEST Tennessee, or Cumberland, being in a more southern latitude than Kentucky, admits of the culture of cotton; consequently the inhabitants attend almost wholly to it, and do not cultivate much grain, hemp, or tobacco, beyond their own consumption.

The soil, which is fat and loamy, appears to be a recent decomposition of vegetable substances; and therefore seems, at present, less suitable for the growth of wheat than maize: the crops of this grain are as abundant as in Kentucky: its stems also grow to the height of eleven or twelve feet, and the ears, which appear at six or seven feet above the ground, are nine or ten inches long; and have a proportionate bulk. It is cultivated in the same manner, and used for the same purposes.

The crows, which are a real scourge to the Atlantic States, where, at three different periods, they ravage the fields of maize, and frequently render it necessary for them to be replanted as often, have not yet been seen in Tennessee.

The grey rats of Europe also have not yet penetrated into Cumberland. They follow the establishments of the Whites in these distant regions, and make their appearance in a few years after the country has been inhabited. At first, they show themselves in the small towns, from whence they spread into the plantations dispersed through the woods.

The culture of cotton is infinitely more lucrative than that of wheat or tobacco. It is calculated that one man, who has no other employment, is able to cultivate eight or nine acres; but the opening of the capsules taking place very rapidly, when it is ripe, it would not be possible for him to pick it up by himself. A man and woman, with two or three children, may, however, easily cultivate four acres, independently of the maize necessary for their subsistence, and calculating on a crop of 350lb. per

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acre, which, considering the extreme fertility of the soil, is very moderate, there will be a product of 14cwt. of cotton, freed from the seed. At the rate of eighteen dollars the quintal, the lowest price to which it fell at the time of the last peace, when I was in the country, it amounts to 252 dollars, from which, deducting 40 for the expence of culture, there is a net produce of 212 dollars: while the same number of acres, planted with maize, or sown with wheat, would only give 50 dollars.

The species of cotton cultivated here is rather in higher estimation than that which is called *Green-seed Cotton*, of which it is only a slight variety.

The price of the best land does not yet exceed five dollars an acre in the environs of Nashville, and, at thirty or forty miles from that town, it is not worth more than three: a plantation completely formed, containing 200 or 300 acres, 15 or 20 of which are cleared, together with a log-house, may be purchased at this price. The taxes are also lower in this State than in Kentucky.

Among the emigrants who annually come from the eastward to Tennessee, there are always some, who have not the means of purchasing lands, but they find no difficulty in hiring them; the speculators, who are possessed of several thousand acres, not being displeased at getting a few settlers on their estates, which induces others to come into their neighbourhood: for the speculations in land, in the States of Kentucky and Tennessee, are only advantageous to those residing on the spot, and who, on the arrival of emigrants, can succeed in making them stop upon their possessions, which soon augments their value. The terms on which they let them, are, to clear and inclose eight or nine acres, to build a log-house, and to pay the proprietor eight or ten bushels of maize for each acre cleared. These agreements are made for six or eight years. By the second year the value of 200 acres of land, adjoining to such a new establishment, rises 30 per cent. and this estate is purchased in preference by a new emigrant, who is sure of gathering, in the first year of his arrival, as much grain as is requisite for the wants of his family and his cattle.

CHAP. XXVII.

OF EAST TENNESSEE, OR HOLSTON.—CULTURES, &c.

EAST Tennessee, or Holston, is situated between the highest part of the Alleganys, and Cumberland Mountains: in length, it comprizes an extent of nearly a hundred and forty miles; the principal differences between it and West Tennessee are that the

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lime-stone appears to lie deeper; that the beds of it, which form the mass, inclined to the horizon, are divided at small intervals, by strata of quartz; and, finally, that the country is watered by a great number of small rivers, descending from the neighbouring mountains, which cross it in all directions. The best land is on their banks.

Maize also forms one of the principal branches of culture here, but it seldom grows to a greater height than seven or eight feet, and thirty bushels per acre is considered as a very good crop. The nature of the soil, which is rather stony, seems better adapted to the growth of wheat, rye, and oats, which are, consequently, cultivated more here than in Cumberland. Cotton is not grown in any quantity, on account of the cold, which sets in very early. It may be inferred, from what has been said, that Holston is in every respect inferior in fertility to Cumberland and Kentucky.

To turn the superabundance of their grain to advantage, the inhabitants breed a great number of cattle, which they send a distance of 500 miles to the maritime towns of the central and Southern States. Very few of these animals are lost in their passage, although they have a great number of rivers to cross, and the country is nearly an uninterrupted forest, added to which they are extremely wild, from being accustomed to the woods.

This part of Tennessee began to be inhabited in 1775, and its population has increased so much, that, at this time, the number of its inhabitants is estimated at 70,000, including three or four thousand negro slaves.

What has been said of the manners of the inhabitants of Kentucky, will, in a great degree, apply to those of Tennessee, since, like the first, they came originally from Virginia and North Carolina: but, hitherto, the inhabitants of Tennessee do not enjoy that degree of affluence which is found among those of Kentucky. They appear also to be less religious, although they are very strict in their observance of Sunday.

CHAP. XXVIII.

MORGAN-TOWN.—SALAMANDER.—BEAR-HUNTING.—DEPARTURE FOR, AND ARRIVAL AT CHARLESTON.

ON the 21st September I left Jonesborough, to cross the Alleganys, into North Carolina; and after a tedious journey of 600 miles, during which I stopped a week at Davenport's Plantation on Doe River, I reached Morgan-town on the 5th October. There is yet no certainty as to the real height of the Alle-

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gany Mountains, nor do they produce any variety of ore, except abundance of iron. In the mountainous part of Pennsylvania and Virginia the land is of a bad quality; but here it is rich and fertile.

The inhabitants of these parts are very expert hunters, particularly of bears, whose skins they sell, and subsist upon the flesh, the fat of which is used instead of oil. A fine skin fetches from a dollar and a half to two dollars. The black-bear lives upon roots, acorns, &c. for which he ascends the trees; but in summer, when such food is scarce, he will fall upon pigs, and even upon men. A species of Salamander is found in the torrents, which is about two feet long, and is called by the inhabitants the *Alligator of the Mountains.* It is described in the *Nouveau Dictionnaire d'Histoire Naturelle.*

Morgan-town, which is 250 miles from Charleston, contains only about 50 houses, built of planks, and is inhabited principally by working people. Columbia is about half way between the above mentioned places, and its climate is very unhealthy.

In the general census of the United States, published in 1800, the population of North Carolina, including the negro-slaves, is stated to be 478,000 inhabitants; that of Georgia, 163,000; and that of South Carolina, 346,000. Not having had an opportunity of seeing the particular accounts of the first two States, I am unacquainted with the proportion found in them between the Whites and the Blacks, and the difference between the population of the low and high country; but an idea of it may be formed from the census of South Carolina, in which the numbers are, in the low country, including the city of Charleston, 36,000 Whites and 100,000 negroes; and in the high country 163,000 Whites, and 46,000 Negroes.

I arrived at Charleston on the 18th of October, 1802, three months and a half after my departure from Philadelphia, having gone through a space of nearly eighteen hundred miles. I remained in Carolina until the 1st of March 1803, at which time I embarked for France, on board of the same vessel as had brought me to America eighteen months before, and I arrived at Bourdeaux on the 26th March.

END OF MICHAUX'S TRAVELS.

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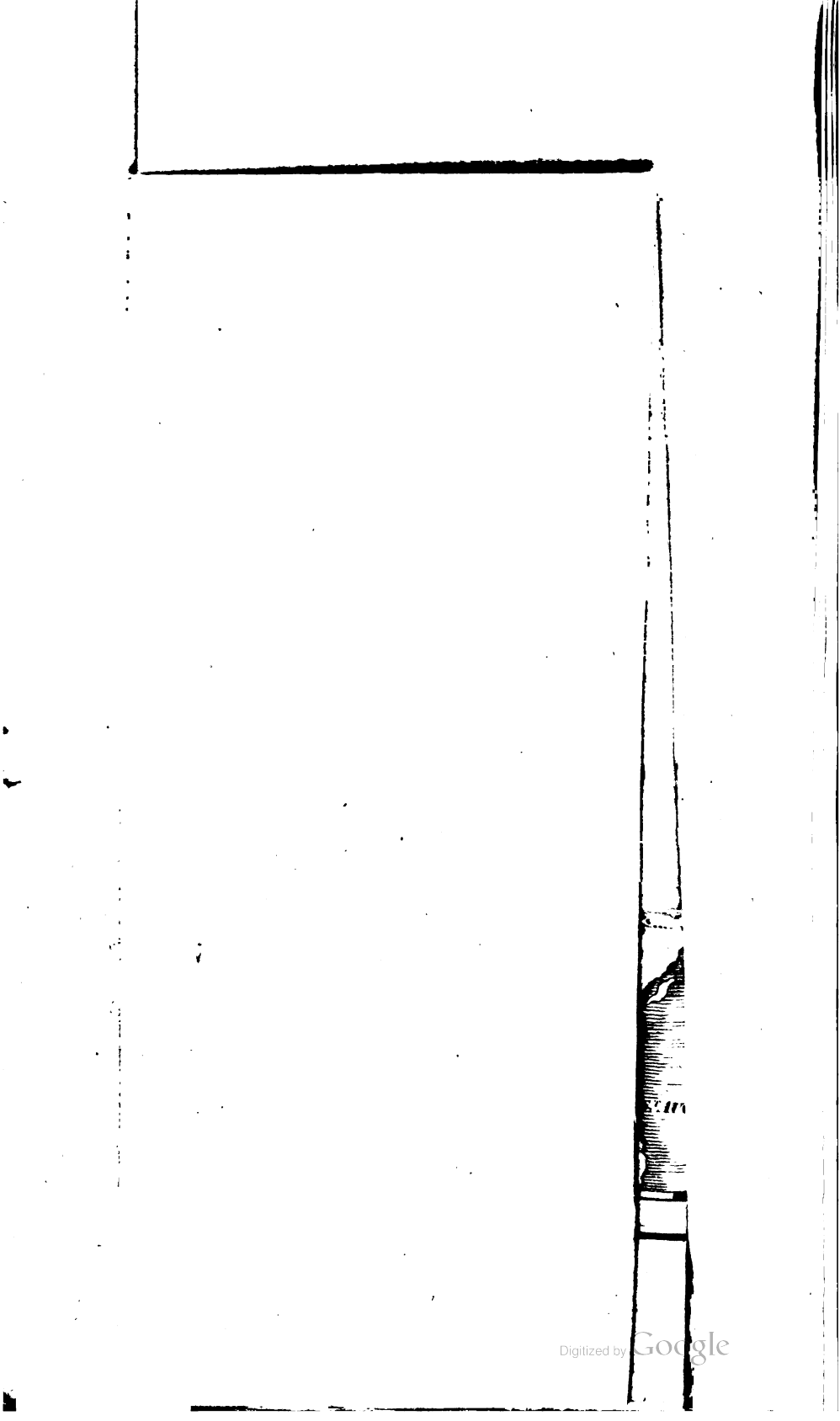
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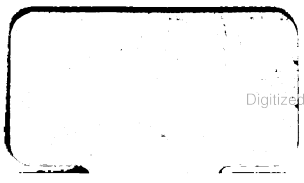

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